DEVELOPMENT OF DEPARTMENTALIZE ENTRANCE EXAMINATION FOR SAMAR STATE UNIVERSITY

A Thesis
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the Faculty of Graduate School
Samar State University
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In partial Fulfillment
Of the Requirement for the Degree
Master of Science in Information Technology

MARIA ELENA B. TIZON

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APRROVAL SHEET

This research project titled **"DEVELOPMENT OF DEPARTMENTALIZE ENTRANCE EXAMINATION FOR SAMAR STATE UNIVERSITY"** has been prepared and submitted by MARIA ELENA B. TIZON, who having passed the comprehensive examination is hereby recommended for oral examination.

MARYJES G. CALADES, Ph.D.
Adviser

Approved by the Research Project Review Committee on Oral Examination on May 28, 2020 with a rating of **PASSED**.

ESTEBAN A. MALINDOG, Jr., Ph.D.
Dean, Graduate School
Chairman

RONALD L. ORALE, Ph.D.
Vice President for Research
and Extension Services
Member

SWEET MERCY F. PACOLOR
Associate Dean, College of
Arts and Science
Member

ENGR. NIKKO ARDEL P. FLORETES
Faculty, College of Engineering
Member

Accepted and approved in partial fulfillment of the requirements for the Degree, **Master of Science in Information Technology.**

May 28 , 2020
Date of Oral Defense

ESTEBAN A. MALINDOG,Jr., Ph.D.
Dean, Graduate School

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MHAIMHAI

DEDICATION

This study is wholeheartedly dedicated to the researcher's beloved parents, who have been her source of inspiration and gave her the strength when she thought of giving up, and who continually provide their moral, spiritual, emotional, and financial support to her.

To her brother, sisters, relatives, mentor, and friends who have shared their words of advice and encouragement to finish this study, she dedicates this study to them.

And lastly, the researcher gives utmost acknowledgement and dedication to the Almighty God for the guidance, strength, power of mind, protection and skills and for the provision of a healthy life. All of these, she offers to Him.

MEBTIZON

ABSTRACT

The study aimed to develop the departmentalized entrance examination to assess the current level ability of the student. This chapter discussed the methods and materials on how the study developed. It provides a detailed description of the methodology that was used in the study. The chapter includes the purpose and research questions, research designs, and sample and data collection procedures, variables and data analysis techniques for the study. The study developed the automated entrance examination system for Samar State University that creates, modifies, updates, store student records and perform students processes and transactions. It can give users ability for workflow, storage, retrieval and security. It was effective in terms of system performance, security, accuracy and it is user friendly. Based on findings of the study, the following conclusions were considered, The research project was successfully designed and developed for entrance examination system. The entire system used multiple choice type of questions and blocking access. This system approach is believed to offer such automatic assessment. It can also be used to promote more effective learning by testing a range of skills, knowledge and understanding. Based on the findings and conclusions drawn from the study, the following measures are hereby recommended, the future proponents must develop a wider scope of the study.

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Chapter I

THE PROBLEM AND ITS SETTING

Introduction

There are various examination methods used in higher education institutions to assess academic progress, for example, paper-pencil-based examinations, assignments, and presentations. Sim, Holifield & Brown (2004) identified more than fifty varied techniques used within higher education for assessment purposes; the most commonly used are examinations. Examinations are not limited to measure educational or societal objectives and needs but incorporate in a way of coping with the educational system (Havens, 2002).

According to Leelavathi (2013), the manual writing method of examination looks unappealing due to many reasons. The problems included are malpractices during examination, delay in result generation, wastage of printed resources and errors occurred due to human negligence. Thus, the need for developing a flexible examination model which is devoid of the above mentioned drawbacks arises.

The paper and pen (manual) method of writing examination, which has been in existence for decades, may not be appealing for use because of the problems usually experienced including examination venue capacity constraints, lack of comfort for examination candidates, delay in the release of results, examination malpractices, cost implication of printing examination materials and

human error. This brings about the need for automation of the examination system.

The cost of assessment in higher education is the most rapidly growing component of tuition fees (Ricketts, Filmore, Lowry & Wilks, 2003), whilst open content shrinks the cost of tuition and learning materials (Wales & Baraniuk, 2008). However, the increasing discrepancy between teaching through blended or online delivery with a learning content management system, and assessing using pen and paper, is another reason to consider ways in which candidates can verify their achievement whilst using computers.

Technology as we know today has come a long way in changing different aspect of lives and helping in human efficiency and accuracy. There is a growing need for educators and stakeholders to explore other means of assessment of students using different medium to help students Examination is the major and widely accepted use of measuring student ability and understanding of a subject initially instruct to them. According to Bodmann & Robinson (2004) computer-based tests offers several advantages over traditional paper-and-pencil or paper-based tests.

Computer is just known as a piece of equipment used to make our work easier. The importance of computer application is increasing day by day. It allows a user to manipulate data easily and its speed of performance incomparable that affected our way of working is seldom applied by school. It also reduces human effort in validating and checking the answers. Accommodates maximum students

at a time with less percentage of errors. The use of computer information technology result for them to be able to developed the products fast and make decision fast, ability to have fluid organization structures. Transferring tests of this nature from booklet to computer may be a relatively straight-forward process. Flexible timing functionality, stand-alone subject module, robustness and scalability are some of the major advantages of the Computer based Test software (Ajinaja, 2017)

Noyes & Garland (2008) believe that the benefits of standardized computer-based tests, such as quick and objective results and the ease of comparing results with others make this method very popular. According to Bodmann & Robinson (2004) computer-based tests offers several advantages over traditional paper-and pencil or paper-based tests.

Many studies found significant differences between computer-administered testing and traditional paper and pencil testing (Chuah, Drasgow, & Roberts, 2006; Gosling, Vazire, Srivastava, & John, 2004). Russell & Haney (1996) found significant differences in the performance of students on the National Assessment of Educational Progress computerized tests when compared to traditional paper and pencil tests. In another experimental research, Bodmann & Robinson (2004) conducted an experimental study to compare speed and performances differences between computer-based (CBTs) and paper-pencil tests (PPTs). Both CBTs and PPTs contained 30 MCQs items with 35 minute of time

limit. Approximately half the class (i.e. 28 students) took the first test on the computer and the rest preferred first test on paper. Procedures shifted for the second tests, with the first group receiving PPTs and second group received CBTs after two weeks. It was concluded that undergraduates completed the CBT faster than PBT with no difference in scores.

As information technology keeps improving, numerous of educational assessments have been transformed from traditional paper-and-pencil to computerized and system-based format in recent years. Assessment of students' academic performance is a significant task an Educator must provide in the context of Education. The methods of assessment of student's academic abilities however, have evolved to come up with an organized set of questions in a bunch of papers that is known as examinations or exams. Ratings in form of numbers however show the level of ability of a student, and to figure or assess their effectiveness which is benefitting knowledge for students, parents, and instructors, etc. (Agatep, 2018).

The system developed within the framework of this study provides the users with an electronic environment that can be used easily, quickly and effectively. In this study the author found a solution for the fastest and easiest way in processing for the entrance examination in every program. The Development of Departmentalize Entrance Examination System is a system that should be used by the examinee using a computer to access in taking the entrance examination instead of using paper and pencil. This entrance examination system is designed

to assist the college department. The design of the system is simple and can be easily understood. The examinee answers the question on the computer system, where question is programmed and visually displayed on the system's screen in an interactive form. It is kind of directly presentation into a server at the end of the examination. Since the departmentalize examination is examined by the computer, time cost of manual examination is saved. The use of Information and Communication Technology registering and administering examinations helps in attaining efficiency and error-free results and computation.

This study developed Departmentalize Entrance Examination which was used for every college in the university. This system can summarize report, provided individual results of the exam. Thus, it saved time and effort using this system and eliminating the manual checking of paper.

Based on feedback in an Educational Institution there are quite a number of students who are complaining right after they have taken a traditional examination. Whereby they cannot automatically know the result of their scores and couldn't be able to evaluate themselves if they have really learned the desired lesson right after the examination session. Further, it took a number of weeks in order for them to know the result of their examination. Also, some students felt bored in taking an examination through the traditional approach. In some cases, others are intimidated with their Proctor who is observing them while taking the traditional exams.

College entrance examination system is very useful for Educational Institute to prepare an exam, save the time that will take to check the paper and prepare mark sheets. It will help the Institute to entrance examination of students and develop their skills. The effective use of "College Entrance Examination System", any Educational Institute or training centers can be use it to develop their strategy for putting the exams, and for getting better results in less time. By using this system, we can identify the courses that they will enroll of the student giving the result of their test.

Moreover, the researcher was motivated to develop the system. To resolve the existing problem of the Departmentalized Examinations.

Statement of the Problem

The study aimed to develop the departmentalize entrance examination to assess the current level ability of the student.

1. To develop an automated entrance examination that:
    1.1 Creates, modifies, updates and save records;
    1.2 Records students processes/transactions;
    1.3 Generate reports;
2. How effective is the proposed automated system for entrance exam in terms of:
    2.1 performance;
    2.2 security;
    2.3 accuracy; and

2.4 user Friendliness?

Theoretical Framework

This study was anchored on the theory of electronic assessment by Tomanová (2003) & Cápay, (2004). There are several studies in the field of electronic tests, including those who question the level of the understudies and its effect on the aftereffects of the tests, understudies not obviously favor PC testing and assessment to educator's evaluation. Perhaps one of the most important characteristics of current studies in the field of assessment has been to focus on the process of interaction between assessment and learning, focusing on multiple building options of tests that are strong in the learning experiences of students. (Black & William, 1998). The results of some studies, such as the Allam & Alkabisi (2007), indicated that the tests are an important means of measuring and evaluating the abilities of students at different levels of study, meeting the targets of education and measuring the learning of students. The elements of success and the identification of students' strengths and weaknesses can be identified in order to improve and develop the level, as well as the effectiveness of the strategies of mutual teaching and effectiveness.

Moreover, the "Computerized Examination Systems (CES)" by Archana (2015) is applied for conducting Quiz, entrance examination system and for conducting class tests also. Furthermore, this study was also anchored to theory on the importance of computer application by Aquino (2005). In the latest decades

of the Millennium, winning organization are those which are willing to integrate business strategy and computer information technology in plying their respective trades. The use of computer information technology results for them to be able to develop products fast and make decisions fast, ability to have fluid organization structures, able to cope with the demanding work force and external environment by the rapid development of innovative approaches and lastly using information system confirms the company's missing vision.

As the said principle that computer based assessment technique is becoming more and more common in Higher Education (HEIs) because of its relevance and direct approach. In short, computer-based testing offers so many benefits and gives us knowledge in technology. Items are written to test particular levels of ability they have the potential to deliver more accurate and reliable results than traditional tests".

Conceptual Framework

As shown in the Figure 1, it is illustrated the conceptual paradigm of the whole system. At the bottom box are user of the system which consists with the College Department, Staff and Students. It is connected to bigger frame divided into two which represents the processes of the system and criteria of assessing the effective of the system. The process starts when the staff will assist the students to take the entrance examination using the computer. In the examination, it consists of multiple choice so that students can easily have an idea.

Student's record and score after taking the exam is automatically saved into the database. Through this method, it will speed up the use of the system and get the students results in the fastest way. Using this type of system, obtaining confidentiality can contribute information, knowledge that students can share while taking the test and secure their scores. The framework also has a consistency and user-friendliness feature by its simple nature, so students can easily take the exams with no pressure, feels comfortable when focusing and concentrating on the test questions.

Next are the findings, recommendation and conclusion of respondents based on their responses, the researcher would identify which part of the system had some errors that are needed to modify. Findings, recommendation and conclusion can be attained by using questionnaires by gathering data through questionnaire. The researcher came up with the findings, analysis and recommendations from the feedback of the respondents for the Effective Automated Entrance Examination for Samar State University.

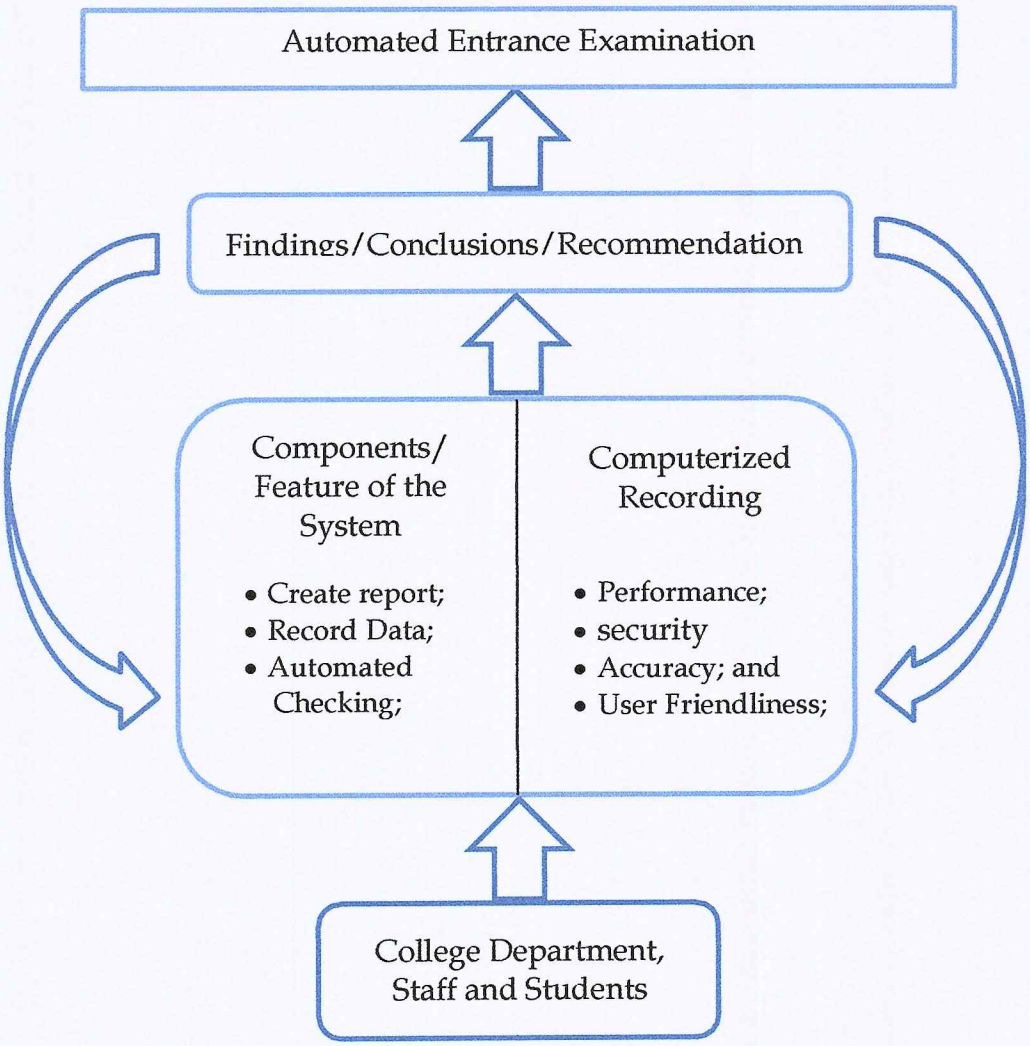

Figure 1. Conceptual Framework of the Study

Significance of the Study

This study intends to benefit not only the end users, but also the department that would use the software. The proposed software provides better method of examination management. It would alter the way of managing number of applicants, make the work simple, less paper, fast and reliable, diminishes the time consumed in the examination preparation and process.

Examinees /Students. Examinees would find an easy way of answering examination from the schools. The student must access the software application and fill out to complete the personal information for database record or reference. Students will choose by category on what program they should take the entrance examination.

Staff/Examiner. As examiner, it would help them a lot to lessen their burden in administering the examinations, and also it would lessen the effort that they would exert in filling those exam papers in places and they can already get the result.

College Department. The teacher/s should be the administrator of the system, who would be the one to create the test questions. If the student is disabled, the college staff would assist the student to take the examination. They are the responsible for checking the work of the examinee and finalizing the score.

They would process the exam result of the examinees and posting the final result by notifying the students.

Community. If the entrance examination is efficient and effective, the community can rely better result. They can have the confident and there is no doubt, that the student's results would be generated accurately by the system.

Environment. Computerized examination is eco-friendly. It would not consume a large number of papers and also there are no harmful contents.

Department. Having a computerized examination in schools is a big factor in having such examination. Not only they can accommodate large number of students to take the examination, also would get all results that they want in a short period of time which is good factor/background of the school.

Future Researcher. This would serve as reference for future researcher in pursuing similar research along computerize entrance examination.

Scope and Delimitation

The proposed study aimed to benefit the examiners and examinees. It focuses on the user friendliness and small use in memory and data storage, also its accuracy and reliability of the process for school can help in evaluating enrollees academic abilities. The questions are multiple choice format. The proposed software can provide too offline use that automatically print the result,

its installation in different personal computers from the other department, ready to use, run as a separate computer process. A standalone program that can run windows XP and higher windows operating system. The developed system was conducted during the School Year 2019-2020 to test the incoming first year. Unfortunately, due to the Corona Virus Disease (COVID -19) Pandemic, this system cannot have evaluated yet. If soon enough the said pandemic is over and everything goes back to normal, this developed system could be launch to test in the different colleges. The software does not cover any other process of enrolling paying tuition, assessment and course evaluation, it does not cover online process. The software was evaluated by the students and it was the basis of the school in accepting students.

Definition of Terms

Computer. Equipment was made to function with other infrastructure such as electricity under "controlled conditions". Part of technology which develop and it is also a tool in creating a system. The examinee would use this tool for the entrance examination for saving the time instead using the manual procedure.

Departmentalize. It is divided by college in different courses. Entrance examination system must require to be installed in different colleges.

Examination. It is one significant metric in the selection of students who will be successful after, study diligently enough to pass all the study requirements, study was conducted to examine the predictive validity of college entrance examination scores and point average for college performance in different programs at this university. Examinations are not limited to measure educational or societal objectives and needs but incorporate in a way of coping with the educational system (Havens, 2002). Significant role in determining what goes on in the classroom in terms of what, and how teachers teach and students learn and can have impact on both teaching and learning' Rehmani (2003).

Examinee. Those students who will take the entrance examination showing the knowledge or ability in a particular subject, or to obtain a qualification on what program they will take.

System. A set of components that interact together so as to accomplish a particular task or purpose. Exam used to assess the student's readiness for admission into higher education and way of working or organizing doing something which follows or set of rules. It contains the categories of courses on what the student should be taken.

Technology. It is the collection of techniques. The simplest form of technology is the development and use of basic tools. Where people can share their knowledge and skills that can invent many things in this world.

Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

The literature and studies cited in this chapter tackle the different concept, understanding, and ideas, generalization or conclusions and different development related to study of the entrance examination from the past up to the present and which serves as the researcher's guide in developing the project.

Related Literature

The following sets of literature are reviewed by the researchers in this study. These materials are found to be related to the current.

Computer technology is rapidly emerging nowadays; it became an important component that an educational institution needs. Technology can give efficiency to facilitate learning processes. Various technology deliver different kinds of content and serves on different purposes. Moreover, technology is often promoted as a solution for improving educational institutions (Waikato,2014).

Meanwhile, Computer Based Test (CBT) is an effective solution for mass education evaluation. In the latest decades of the Millennium winning organization are those which are willing to integrate business strategy and

computer information technology in plying their respective trades. The transformation of manual entrance examination to automated is one example of what has driven part by rapid technological Innovation. Any ways just to make work easier and faster like examination processing is possible with emergence of computer technologies (Aquino, 2005).

Online examination mediated by Information and Communication Technology (ICT) becomes more pervasive, and since there is a growing need for educators to consider modes of assessment using similar tools. The system offers you the speedy and accurate solutions within desired time limit. The assessment is fast, reliable and accurate. Also reduces the printing of tests and other materials required for the colleges. Computing the scores of the examinee using the system is easier than the conventional way of examination for educators. The assessment is fast, reliable and accurate, result is more exact. It is come up with several built-in features designed to prevent cheating like Print Screen, which means that test takers cannot save screen shots of the test, or go back to a previous screen and change their answer. Another key security feature is dual-proctor log in, where the administrator must be logged in first before the examinee can take the test. This prevents students from accessing the test questions ahead of time, and unfairly preparing for them. Reaching the campus, writing the papers could be an obstacle for them.

The National University of Singapore introduced computer-based testing (CBT) in 2004. Lim et al., (2006) examined medical students' attitude about CB VS PB testing. Through an online survey 213 (53.5 percent) final-year. MBBS students were tested out of which 91 (79.8 percent) preferred CBT, 11 (9.6 percent) preferred paper-and-pencil (PNP) format and 12 (10.5 percent) were un-sure. Authors further explained that 42 indicated that 42 liked CBT because of good quality of images and independent of assigned seating positions; 22 liked because they could proceed at their own pace; one stated that CBT examinations was fun; 4 enjoyed the convenience of CBT and 6 cited "equality" as the reason they preferred CBT over PNP testing.

Bodmann & Robinson (2004) conducted an experimental study to compare speed and performances differences among computer-based (CBTs) and paper-pencil tests (PPTs). In experiment fifty-five undergraduate students enrolled in the subject of educational psychology, participated in the studies which were already familiar with computer-based tests. Both CBTs and PPTs contained 30 MCQs items with 35 minute of time limit. Approximately half class (28 students) took the first test on the computer and rest preferred first test on paper. Procedures shifted for the second tests, with the first group receive PPTs and

second group CBTs with a gape of two weeks. It was concluded that undergraduates completed the CBT faster than PBT with no difference in scores.

Koppel and Hollister conducted a study to examine the impact on student performance of a computer-based assessment (CBA) as compared to a traditional testing method. Three different research tool were used in the study to collect and interpret results i.e., questionnaires completed by students to express their CBA experiences; faculty interviews who had administered computer-based test to determine students' perceptions of using this medium of testing and analysis of students test scores in both conventional paper-based tests (PBT) and CBA.

Calarina & Wallace (2002) investigated to confirm several key factors in computer-based versus paper-based assessment. Factors of the study were content familiarity, computer familiarity, competitiveness, and gender. The study used a post-test only designed with one factor, test mode (Computer-based and paper-based). Students' score on 100-item multiple choice items and students' self-report on a distance learning survey were treated as dependent variables. Four sections of Computer Fundamental Course consisting of 105 students were selected as sample of the investigations. Results showed that computer-based test delivery impacted positively on students' scores as compared to paper-based test. From the abstract of the study, it was found that ANOVA of test data showed that the computer-based test group outperformed the paper-based test group. Gender, competiveness, and computer familiarity were not related to this performance difference, though content familiarity was.

Related Studies

In a study conducted by Andino et al., (2016) entitled "Automated Entrance Examination System For Cavite State University Silang Campus", posited that online entrance exam can easily provide fast and printed results to the examinees. It is a user-friendly system and provides quality service to the students as well as to the administrator or instructors. Through the use of Automated Entrance Examination System, much effort may be saved and many projects would be made more effective for the development of examination.

Another study conducted by Couse & Chen (2010) entitled "College Entrance Examination System" the programs and devices are increasingly user friendly. Schools started to use computer process for evaluating students. The commodities, new devices, services in technology are needs of man for a better fuller life which is the concern of the research. Through the use of technology, the economy of the country is moving forward. Nowadays, most people are using computers to make their work easier and faster and most jobs in the country involve use of computers because of their importance in the society.

The above study and the current study were similar in the sense that both studies delve on the development of entrance examination. Meanwhile, the above and the current studies were different in the sense that the current study delves on the development of departmental entrance examinations, while, the current study

focused on development of departmentalize entrance examination of Samar State University.

In a study conducted by Garas (2018) entitled "Student Performance on Computer-Based Tests Versus Paper-Based Tests in Introductory Financial Accounting: UAE Evidence", examines whether the use of technology-based assessment tool affects the examinations' scores of students from both genders. It ascertains whether the mode of student testing (computer-based or paper-based) in an introductory-level financial accounting course impacted students' scores (a direct measure of learning). In doing so, the study relies on experimental design wherein the type of examination is being controlled together with other contextual variables such as timing of the exam, instructors, and the gender of students.

The above study and the current study were similar in the sense that both studies are into the development of entrance examination. Meanwhile, the above and the current studies were different in the sense that the current study delves on the student performance on computer-based tests versus paper-based tests, while, the current study focused on the development of departmentalize entrance examination of Samar State University.

Another study conducted by Andino et al., (2016) entitled "Automated Entrance Examination System for Cavite State University Silang Campus" found that the automated entrance examination is a user-friendly system and provides quality service to the students as well as to the administrator or instructors.

Through the use of Automated Entrance Examination System, much effort may be saved and many projects would be made more effective for the development of examination. Paperwork can take up a significant amount of space, and this requirement would only get bigger as the number of documents you accrue grows. Furthermore, documents would typically need to be stored close to hand so that they can be accessed as quickly as possible. If they are located on another floor or in a different building, there is an experience of severe productivity losses when retrieving forms. There is more to developing a computerized test than entering test items from a traditional paper and pencil test into a computer. This system offers many new opportunities in educational assessment, where computers – which allow a more efficient.

The above study and the current study were similar in the sense that both studies delved on the development of entrance examination. Meanwhile, the above and the current studies were different in the sense that the current study delves on the automated entrance examination system for Cavite State University Silang Campus, while, the current study involved in the development of departmentalize entrance examination of Samar State University.

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current study was on the development of departmentalize entrance examination of Samar State University.

Chapter 3

METHODOLOGY

This chapter discussed the methods and materials on how the study developed. It provides a detailed description of the methodology that was used in the study. The chapter includes the purpose and research questions, research designs, and sample and data collection procedures, variables and data analysis techniques for the study.

Research Design

This research is a developmental research which involve development of Information Technology project, specifically it uses System Development Life Cycle (SDLC) method. The System Development Life Cycle (SDLC) consist five phases namely: Planning, Analysis, Design, Development and Implementation. This is the process applied in the development of the system/product.

Moreover, the researcher utilized Product development Model that emphasizes the importance of introducing new system on the form for continuing success. To build good-quality software it needs to fully understand the essentials of software development, customer's requirements to the delivered product. The data used in this study was taken from the different Colleges. Taking as an example, the College of Arts and Sciences department consist of Information

Technology Test. It is composed of multiple - choice, faculty of Information Technology created and uploaded the questions through the assistance of the encoder into the system. It is also follows the same process to other departments.

The Software Development Life Cycle of the Computer Base System

A project is implemented step-by-step in accordance with the precise sequence: The model views the process of software development in six stages analysis, software design, software development, software testing and software maintenance, shows in Figure 2.

Analysis. The proponent gathered different ideas about what would be the project to be developed, and target place where the system had to be implemented. The researcher came up with the title "Development of Departmentalize Entrance Examination for Samar State University". Throughout the research, the proponent concluded that the gathered literature and studies helped to support the proponent proposed title. The researcher found out that the current procedure during entrance examination needed a lot of improvement. The school continue to have a growing population that is why the demand of clients is increasing. Requirement and specification of the software were collected.

Data Analysis

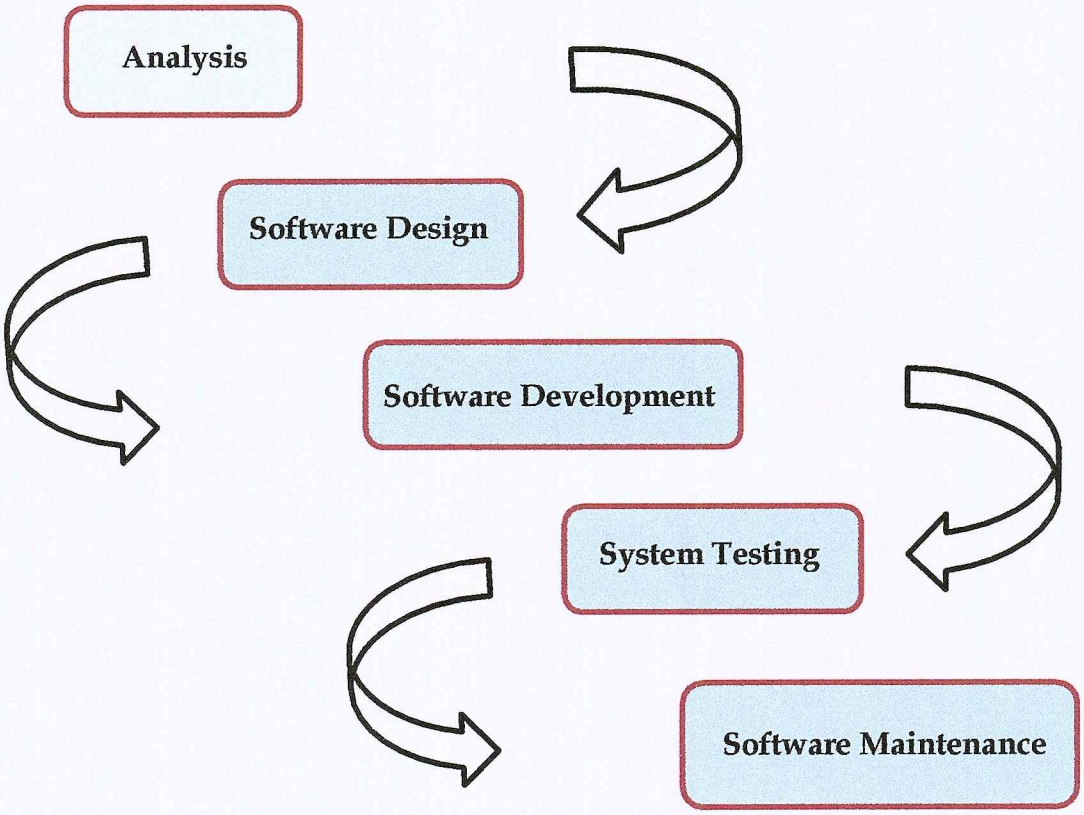


Figure 2: Software Development Life Cycle of the Study

Software Design. The researcher identified all the needed requirements in order to develop the user specification and required system in terms for the functional and non-functional requirements. The researcher developed a software for the system for the desired flow of the project to meet the general and specific requirements of the proposed project. **It** involves creation of a project scope document with mockups, or hand-drawn sketches, and a detailed software development specification. It should be mentioned that in some cases vision and scope documents can be presented as one Vision and Scope document. The requirements can be provided in different forms.

Software Development. In developing of the system, the researcher used the server Xamp were located the PhpMyAdmin to get all the data of every student that took the entrance examination from the developed system. All the information of every user and from the different colleges has been added to database to give the client an idea how the final product would operate. The design was coded and simple forms from the study was also developed to meet the objectives of the system and all of these were included the creation of a prototype into the software development phase.

System Testing. The researcher conducted data gathering and final testing of the performance, security, accuracy and user friendliness to the respondent. During the data gathering, there were suggestions given by the respondents and all of those were adapted. The major code problems were fixed and the software were able to deploy. For minor fixes, a simple bug tracking system was used to

solve the problems and be tackle during the maintenance. For the the final testing, all suggestions of the respondent were adapted and it ends well.

Software Maintenance. The product was tested and deployed at the client's server. The proponent is always maintaining the software in upgraded process. For protection and safety of some minor bug, the researcher fixed those issues that are usually made during this phase and causes the system's problem. It may come up with functionality enhancements to the developed software.

In this section it presents, sample screenshots on how the system works. Figure 3 shows the login system, which requires the user to enter username and password.

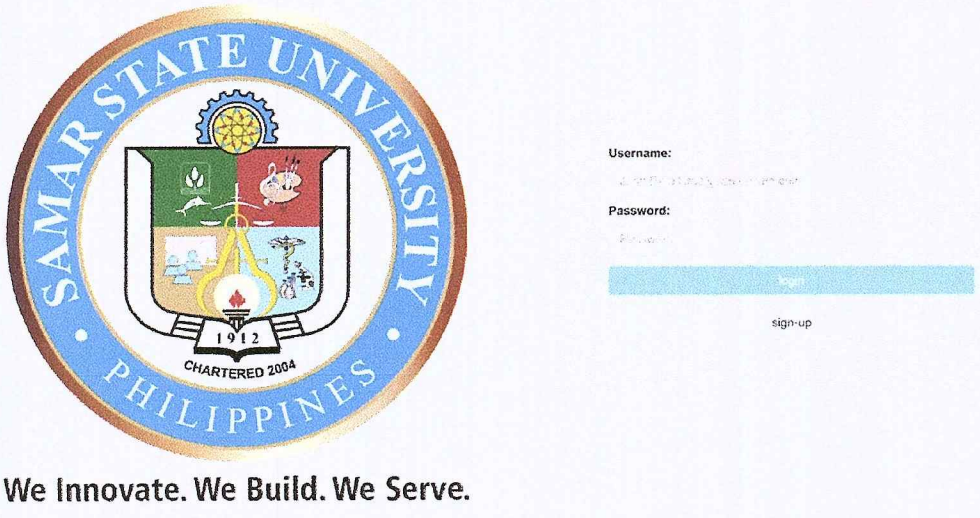


Figure 3. Login System for the Examinee and Admin

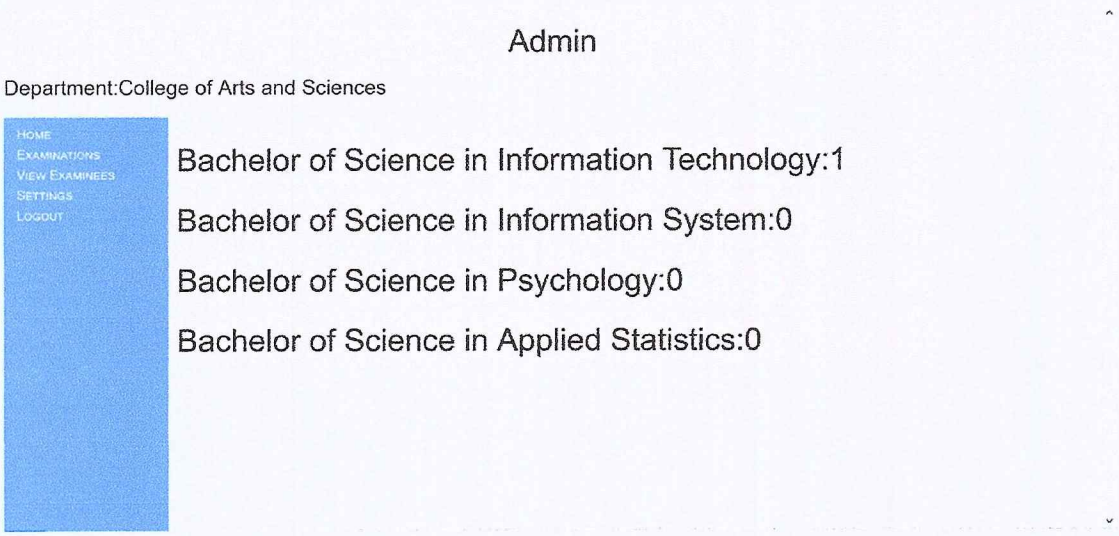


Figure 4. Login System for the admin

Figure 4 shows the admin environment where the admin can create, update and upload questions and choices for programs offered in a specific department. In addition, it can be viewed that the system has four tabs. First the "Home" tab which is the default page, second the "Examination" tab which displays the test questions. To know the number of examinees in each program it can be viewed in the "View Examinees" tab. The last is the "Settings" tab which sets on what part of the system can be enable or disable.

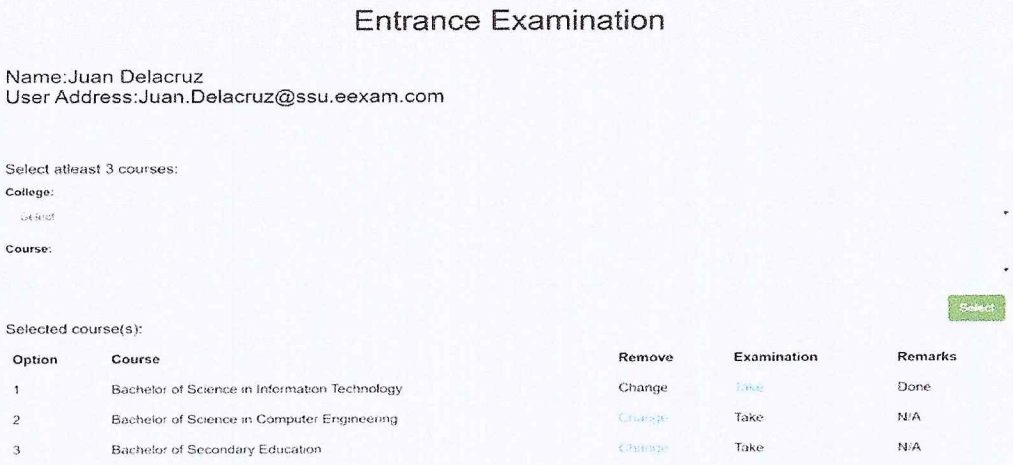


Figure 5. Computer base test for the Entrance Examination

Figure 5 shows the initial setting before taking the entrance examination. If the student chooses Information Technology that he/she would like to take, he/she can only access the Information Technology examination and the rest of the program will be disabled so that the examinee cannot access the test questions from the other programs.

Figure 6 shows an example of the test questions for the Information Technology program. The questions are multiple choice type, once the students click submit, results will be generated by the system.

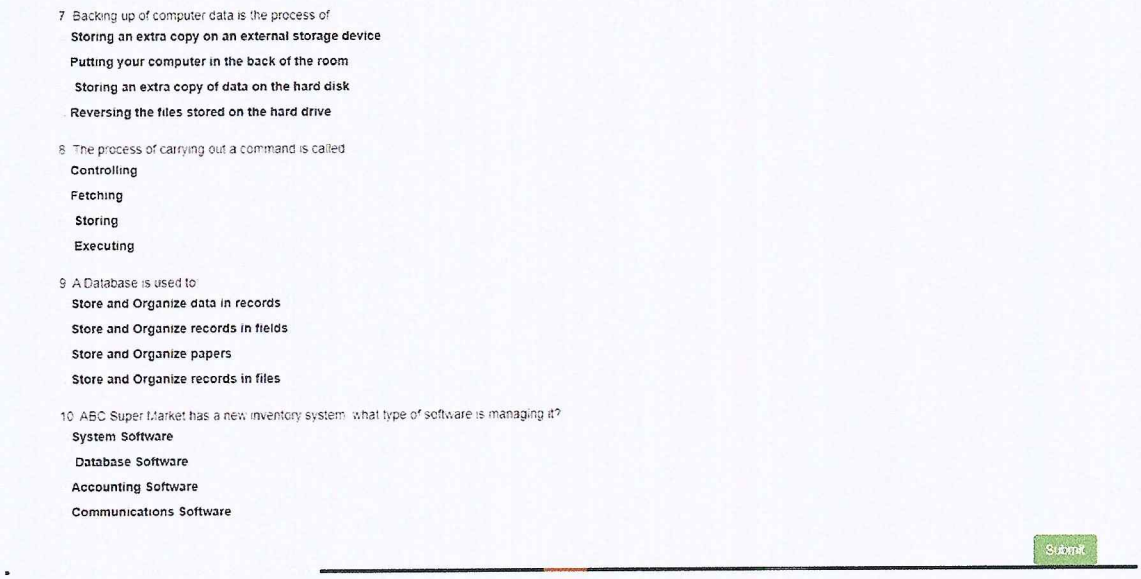


Figure 6. Homepage of Computer based test

Data Collections

Data and questions used in this study were manually given by different colleges. The example used in this study was taken from the College of Arts and Sciences Department with program such as Information Technology. The test under this program is composed of multiple – choice that was created by the IT teachers and uploaded by the encoder into the system. Similar process applies to other department when students use this system.

Figure 7. Shows the Block Diagram of the whole system. Starting from registration in which basic information of the student should be entered. Next, the

student must log-in to the system where "Home" page would be displayed. Further, you need to select the three courses (First choice, Second choice, Third choice). Then, the administrator should now confirm on the courses selected by the student. At this stage, student can now take the exam. Scores of the examinee can immediately be computed and can be viewd by the administrator.

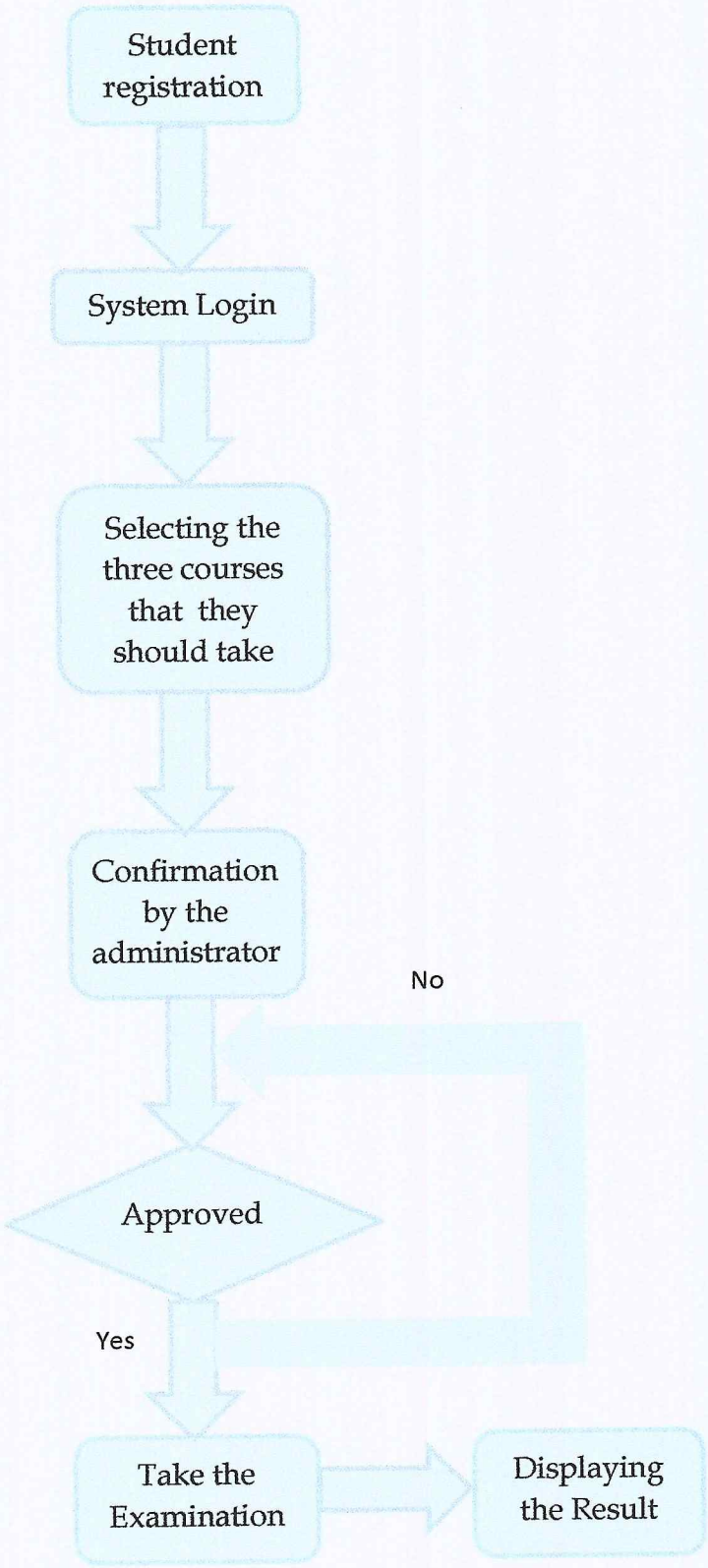


Figure 7. Block Diagram of the System.

Software Design

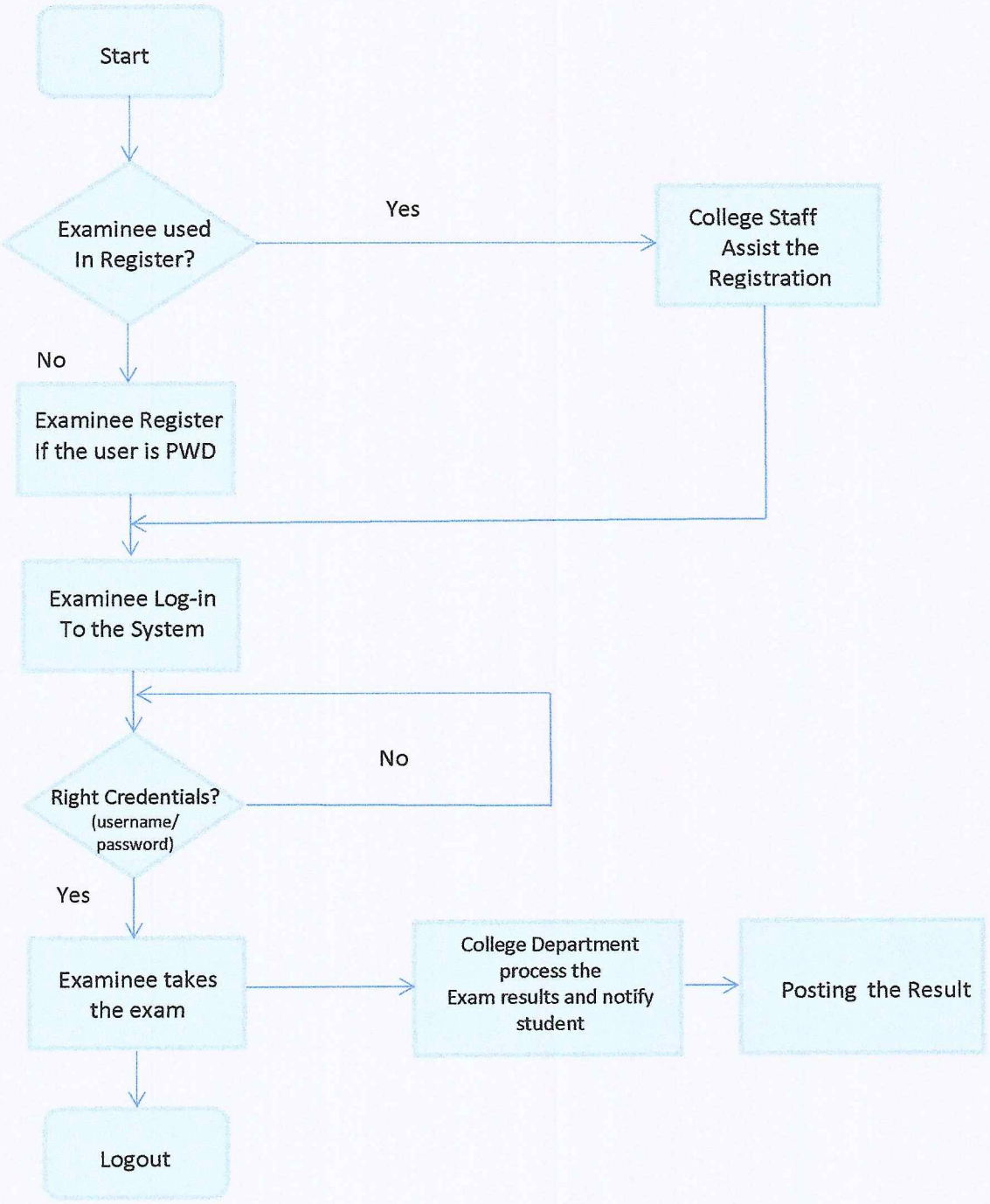


Figure 8: Flowchart of the System

In Figure 8, the student must access the software application and required to sign up the system for database record or reference. If the student is considered as Persons with Disability (PWD), the college staff will assist the student during his/her examination. If the user has completely registered, student will log-in in the system by entering the username and password. It should be necessary that password and username will be recognized, otherwise student cannot access the system. Further, the college department can easy be viewed the result at once using the system.

Ethical Consideration

Sufficient information and assurances were provided by the researcher to the respondents about the implications in the participation from the study. The researcher also informed the respondents that they have a choice whether to participate or not during the conduct of the study. The researcher was responsible for the fair treatment of the respondents and assure that there is no dishonesty in the conduct of the study at any phase. The interpretation of the data by the researcher is in the accordance to the standard way of analysis.

Respondents are required to become aware of the purpose of the research, its significance, how the findings would use and if there are any potential adverse

impacts of their participation and who would have access to the findings. Also, the respondents could make an informed decision as to whether they would engage in the evaluation or not. Additional details shall also be given in the event if the participant becomes distressed in a way during their involvement.

In the study, respondents were free from coercion and free to cancel their involvement any time without negatively influence on their involvement in future services or the current program and connections with any of the researcher or research bodies involved. It is the right of the respondents to withdraw at any time; therefore, no pressure would be placed to those who choose not to continue. Explanation is also not required.

Chapter 4

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter shows the discussion of the project in terms of the result and findings from the test conducted through evaluating its effectiveness.

Departmentalize Entrance Examination System

The researcher developed a departmentalize entrance examination system that allows the incoming first year students to take the exam comfortably. The system provides a design that can easily use and understand by the student, it also includes an options for selecting what courses he/she would like to take. The administrator manages the setting up of the questions, choices and upload once it is ready.

The system gives a highly important needs from the department in expressing their skills and provide the potential on what courses they would choose like Civil, Electrical, Electronics Engineering and Computer Engineering in the Engineering Department. Information Technology for the CAS department

and other courses offered in the other department. A few of the students may still be undecided of their course during the start of class, by this circumstances, students might stop or shift to other courses. Reasons emerges when student find difficulty to the program with high eliminations like Engineering and Educations.

When using the entrance examination system, at first, the student needs to create an account through the registration button, filled it up only with the basic personal information in a fastest way. After the registration, the student can log-in to the system using your accounts. Second, the student needs to select the department by clicking the choices. Third, the student can now select the courses that the he/she would like to take. If the student wanted to change his/her course, he/she may click the "Change" button.

The administrator of the system has processes to be done. In Figure 10 shows a sample of confirmation of the administrator where it displays the list of students who took the courses by department. The "Allow" tab, has "Yes" meaning to the admin and allows the student to take the examination, otherwise the administrator will click "No" to disprove the taking of the examination. If the student already finished the exam a "Done" will be displayed.

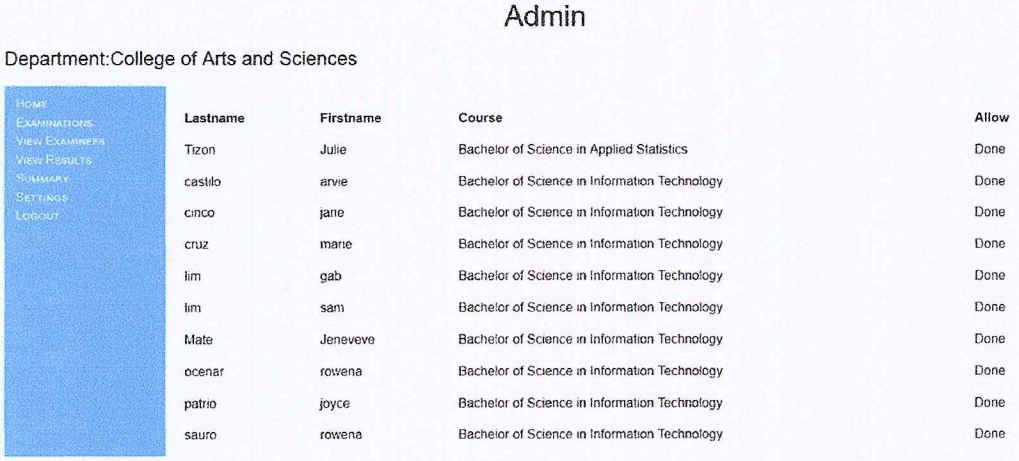


Figure 9. Confirmation of the administrator

Student can access the system already by allowing the administrator. Figure 10 shows below how the examination process. As observed at the upper right side, there is a timer that controls on how much time spent during answering the entrance examination. Test can create text and images by depending the questions.

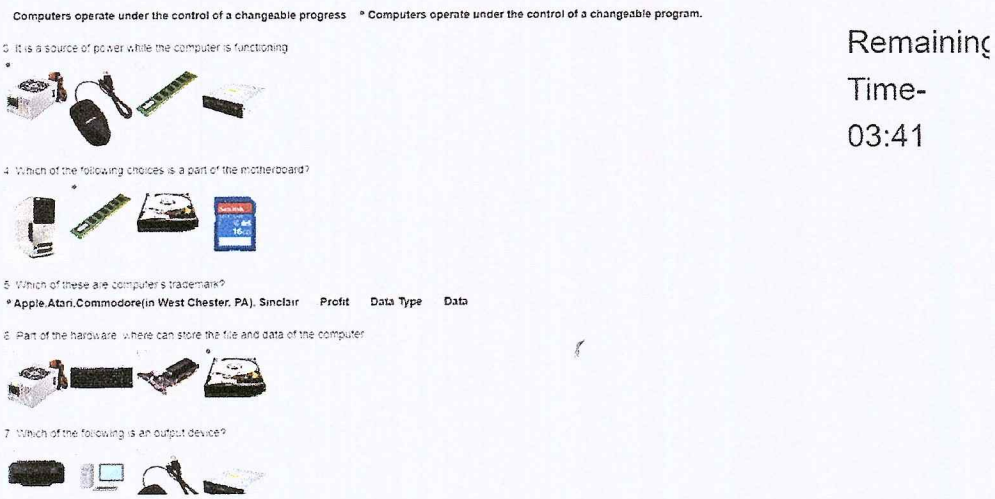
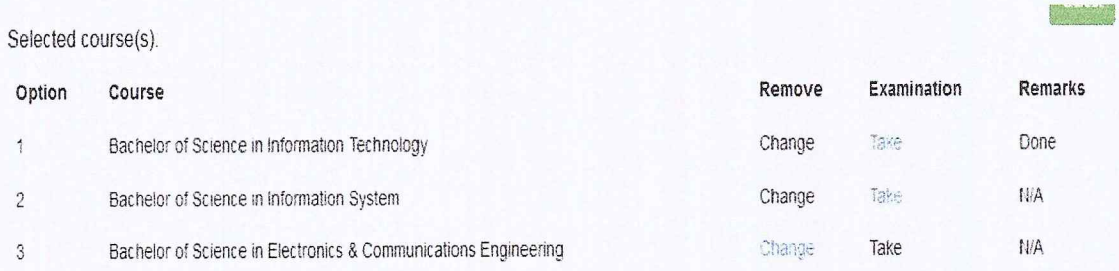


Figure 10. Example of Test questions

As shown in Figure 11, the "Take" must be highlighted so that the confirmation of the administrator will allow the student/s to take the examination. Once the student had already taken the exam, a remark of "Done" will be displayed and limit the student to take once only. Then, if a student changes his/her mind of what courses to take, he/she will only click the "Change" to select again the other course.



Selected course(s).

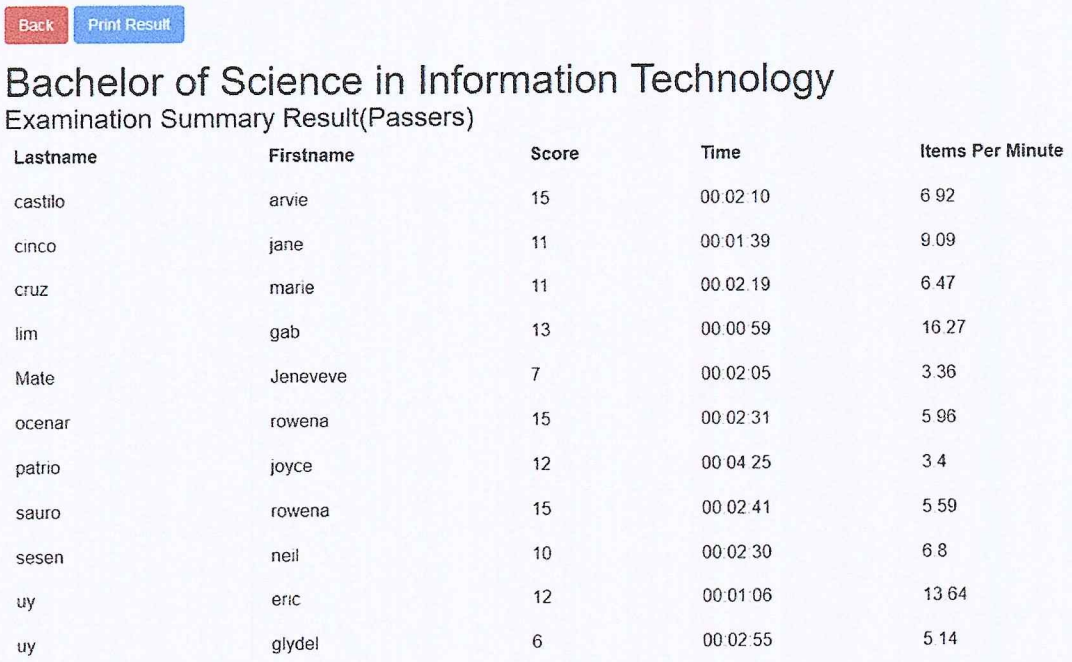
Option	Course	Remove	Examination	Remarks
1	Bachelor of Science in Information Technology	Change	Take	Done
2	Bachelor of Science in Information System	Change	Take	N/A
3	Bachelor of Science in Electronics & Communications Engineering	Change	Take	N/A

Figure 11. Example of the three courses which a student have the option to take the entrance examination

After the student took the entrance examination, the administrator can view the result by checking their scores if he/she passed or failed the test which can viewed on the "View Results" located at the left-side panel of the system under the admin account. Furthermore, we can also identify what course has the higher

number of students during the interview and also provide information to those who are not qualified to take the course.

In Figure 12, it shows the summary of the result of the students who took the examination it contents the score, time consume and the items per minute.


Back Print Result

Bachelor of Science in Information Technology

Examination Summary Result(Passers)

Lastname	Firstname	Score	Time	Items Per Minute
castilo	arvie	15	00:02:10	6.92
cinco	jane	11	00:01:39	9.09
cruz	marie	11	00:02:19	6.47
lim	gab	13	00:00:59	16.27
Mate	Jeneveve	7	00:02:05	3.36
ocenar	rowena	15	00:02:31	5.96
patrio	joyce	12	00:04:25	3.4
sauro	rowena	15	00:02:41	5.59
sesen	neil	10	00:02:30	6.8
uy	eric	12	00:01:06	13.64
uy	glydel	6	00:02:55	5.14

Figure 12. Result of the score of the students

If you want to get the summary of the result of the examinee it is shown in figure 13 below. As you can see there is a list of courses then the number of takers and we can identify the number of passers and failed.

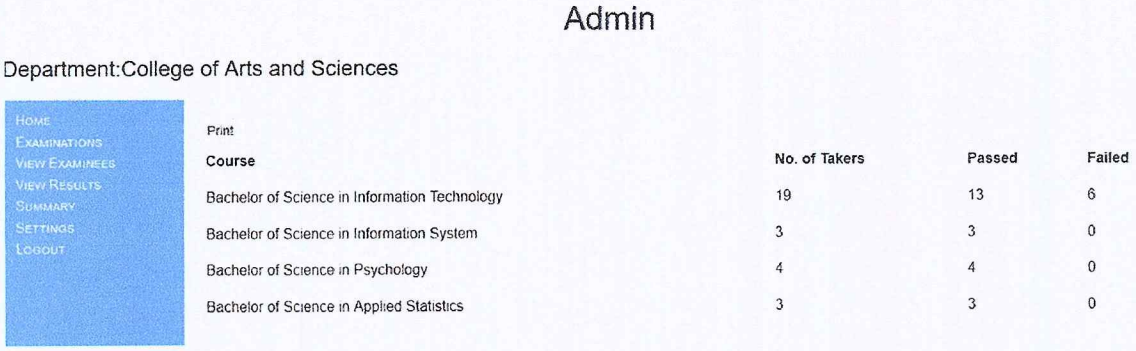


Figure 13. Result of the examinee per program

In securing and protection of the system, it uses username and password. It is secured for the reason that it only uses for local hosting. Thus, hacking or fishing of the content is not possible. The confidentiality of the test results will be secured using encryption of the data, which used to protect the data from the system. Encrypting the password and username of the examinee and other important files especially when uploading the test question to the system.

Shown in the Table 1 are the respondents from the different colleges. The College of Arts and Sciences evaluated the performance of the developed system and resulted as "Strongly Agree" with a weighted mean of 4.6. The College of Engineering evaluated the performance of the developed system and resulted to have all indicators as viewed as "Strongly Agree" with a weighted mean of 4.7. Another is the College of Education which evaluated the performance of the

developed system and resulted from the respondents evaluated the system as "Agree "with a weighted mean of 4.5. The College of Industrial Technology has the interpretation of "Agree "with a weighted mean of 4.5. The last line the Graduate School respondents who evaluated the system as "Agree "with a weighted mean of 4.0.

Table 1

System Performance as perceived by the respondents from the different Department

Department	Weighted Mean	Interpretation
College of Arts and Sciences	4.6	Strongly Agree
College of Engineering	4.7	Strongly Agree
College of Education	4.5	Agree
College of Industrial Technology	4.5	Agree
Graduate School	4.0	Strongly Agree
Grand weighted mean	4.5	Strongly Agree

Table 2 shows the illustrated security from the different colleges. College of Arts and Sciences evaluated the security of the developed system and resulted as "Strongly Agree" with a weighted mean of 4.7. Meanwhile, College of Engineering resulted to have all indicators viewed as "Strongly Agree" with a weighted mean of 4.6. Another college is the College of Education which evaluated same with the

previous result of interpretation of "Strongly Agree" and has the weighted mean of 4.6. The interpretation of College of Industrial Technology viewed as the result of "Strongly Agree" with a weighted mean of 4.7 and the interpretation of the College of Graduates respondents evaluated the system as "Strongly Agree "with a weighted mean of 4.2.

Table 2

System Security as perceived by the respondents from the different Department

Department	Weighted Mean	Interpretation
College of Arts and Sciences	4.7	Strongly Agree
College of Engineering	4.6	Strongly Agree
College of Education	4.6	Strongly Agree
College of Industrial Technology	4.7	Strongly Agree
Graduate School	4.2	Strongly Agree
Grand weighted mean	4.5	Strongly Agree

In terms of accuracy, it is shown in the table 3 which illustrated from the different colleges. College of Arts and Sciences has the interpretation of "Strongly Agree" of the developed system and has a weighted mean of 4.6. College of Engineering resulted to have all indicators viewed as "Agree" with a weighted mean of 4.5. Resulted from the College of Education has the interpretation of

"Agree" and has the weighted mean of 4.5. The interpretation of College of Industrial Technology viewed as the result of "Strongly Agree" with a weighted mean of 4.6 and the interpretation of Graduate School respondents evaluated the system as "Strongly Agree "with a weighted mean of 4.0.

Table 3

System Accuracy as perceived by the respondents from the different Department

Department	Weighted Mean	Interpretation
College of Arts and Sciences	4.6	Strongly Agree
College of Engineering	4.5	Agree
College of Education	4.5	Agree
College of Industrial Technology	4.6	Strongly Agree
Graduate School	4.0	Strongly Agree
Grand weighted mean	4.4	Strongly Agree

Table 4, shown the user friendliness illustrated from the different colleges. College of Arts and Sciences has the interpretation of "Strongly Agree" of the developed system and has a weighted mean of 4.6. The College of Engineering same with the result from the previous college mentioned viewed as "Strongly Agree" with a weighted mean of 4.6. Resulted the interpretation from the College of Education viewed as "Strongly Agree" and has the weighted mean of 4.5. Also

the interpretation of College of Industrial Technology viewed the result of "Strongly Agree" with a weighted mean of 4.6 and lastly, the interpretation of the Graduate School respondents evaluated the system as "Strongly Agree "with a weighted mean of 4.2.

Table 4

System User Friendliness as perceived by the respondents from the different Department

Department	Weighted Mean	Interpretation
College of Arts and Sciences	4.6	Strongly Agree
College of Engineering	4.6	Strongly Agree
College of Education	4.5	Strongly Agree
College of Industrial Technology	4.6	Strongly Agree
Graduate School	4.2	Strongly Agree
Grand weighted mean	4.5	Strongly Agree

Functions and Operation of the System

For securing the system, using encryption the data is used to protect the data from the system, protecting personal information of the examinee where can easily auto save in the database as the storage. Encrypting the password and username of the examinee and the other important files especially when uploading the test question to the system and this also avoids cheating during examination and avoiding the mistakes. The key is being protected to the untrusted users.

Encryption of data is one of the most popular and effective data security methods used by organizations. It is useful to look not only at comparability at the total score level, but also at the item level because there can be strong mode effects for individual items that cancel out at the overall score level. Most comparability studies have not examined mode effects at the item level.

When it comes to accuracy, computing the scores of the examinee is easier than the conventional way of examination. Results is more exact and prone to error. The system has several built-in features designed to prevent cheating like print screen, which means that test takers cannot save screen shots of the test. Another key security feature of the system is that, it prevents students from accessing the test questions ahead of time, and unfairly preparing for them.

It can be user friendly in such of being simple of the design not colorful. It can be easily visited and accessed by the users. Each button responds immediately every time you click. It offers the option of adding images and more of a test item to help enrich the content. A great advantage of this, is the accessibility to students with disabilities. Computers can be customized to cater to those with various physical disabilities. The physically disabled students have limited access to such traditional methods of educations and examination.

Database and Software Application

This study used the phpMyAdmin Server to access the data from the system. To start, administrator user and the examinee registers to store the data into the database server. PhpMyAdmin is a free software tool written in PHP, intended to handle the administration of MySQL over the Web. PhpMyAdmin supports a wide range of operations on MySQL and MariaDB. Frequently used operations (managing databases, tables, columns, relations, indexes, users, permissions, etc) can be performed via the user interface, while you still have the ability to directly execute any SQL statement *(https://www.phpmyadmin.net/)*

The system used this database server for functioning of storing, retrieving data and data protection specially the username and password of the user. The questions were created by the admin, together with the choices and answers also store in the SQL database. Xampp used as the local server in connecting to the database. **XAMPP** is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, DB database, and interpreters for scripts written in the PHP and Perl programming languages. Since most actual web server

deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server possible. XAMPP's ease of deployment means a WAMP or LAMP stack can be installed quickly and simply on an operating system by a developer, with the advantage that common add-in applications such as WordPress and Joomla! can also be installed with similar ease using Bitnami. *(https://xampp/index.htm)* shows in Figure 3.

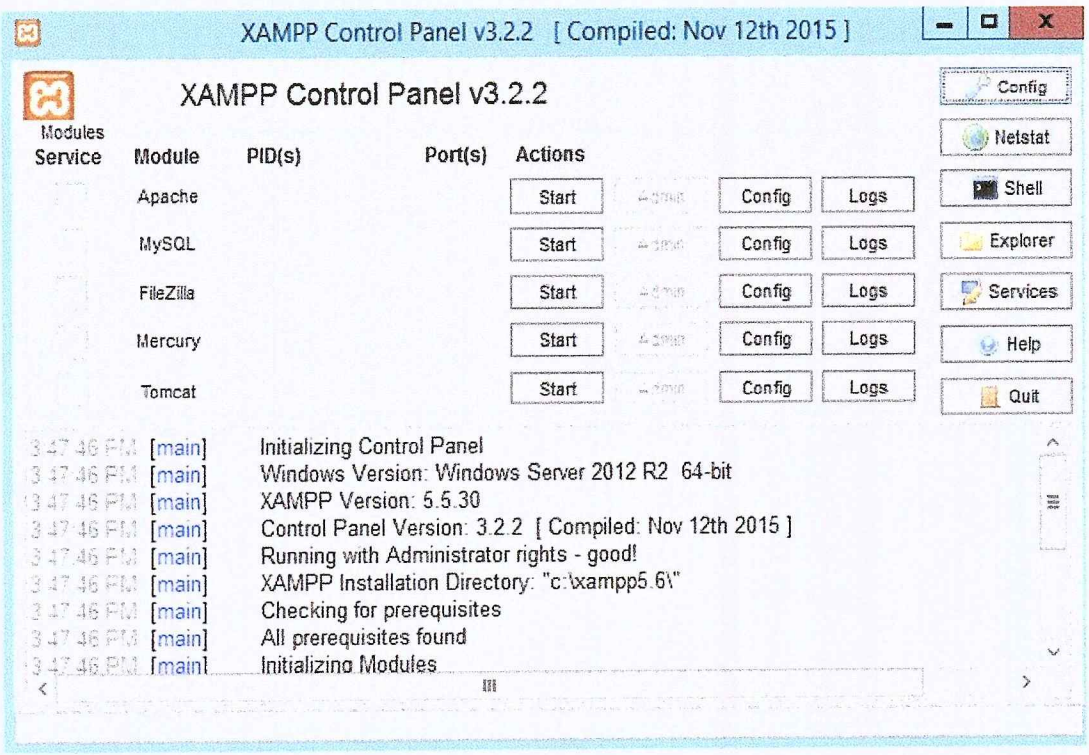


Figure 14. Xampp as the local server.

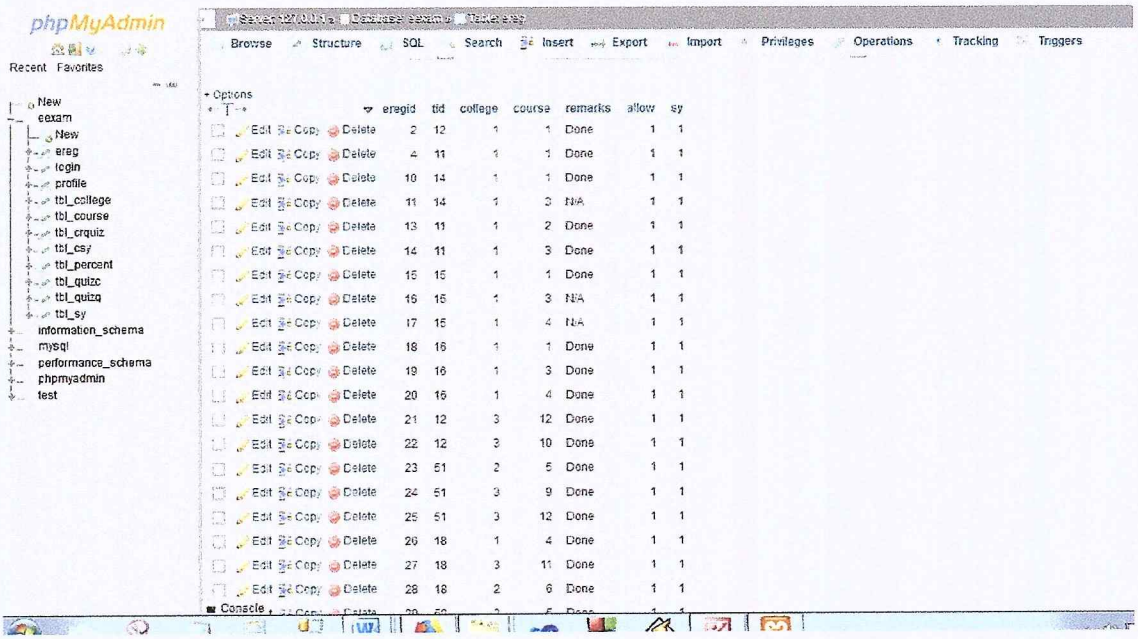


Figure 15: The PhpMyAdmin Server

Figure 15 shows the PHP (recursive acronym for PHP: Hypertext Preprocessor) which is a widely-used open source general-purpose scripting language that is especially suited for web development and can be embedded into HTML. What distinguishes PHP from something like client-side JavaScript is that the code is executed on the server, generating HTML which is then sent to the client. The client would receive the results of running that script, but would not know what the underlying code was. The user can even configure your web server to process all your HTML files with PHP, and then there is really no way that users can tell what you have up your sleeve. The best things in using PHP are that it is extremely simple for a newcomer, but offers many advanced features for a professional programmer *(https://www.php.net/manual/en/intro-whatis.php)*. The

web server outputs the results of the interpreted and executed PHP code, which may be any type of data, such as generated HTML code or binary image data. PHP can be used for many programming tasks outside of the web context *(https://en.wikipedia.org/wiki/PHP)*. The study used as a front end and the back end of the system. This IDE is connected to the MYSQL server where it can access the data into the database. It is also uses to develop computer programs. The researcher used this language because it is one of the highly programming languages for the system and convenient to use in terms of coding and query processes.

Sublime Text editor is a sophisticated text editor which is widely used among developers. It includes wide features such as Syntax Highlight, Auto Indentation, File Type Recognition, Sidebar, Macros, Plug-in and Packages that make it easy for working with code base. *(https://sublime_text/index.htm).*

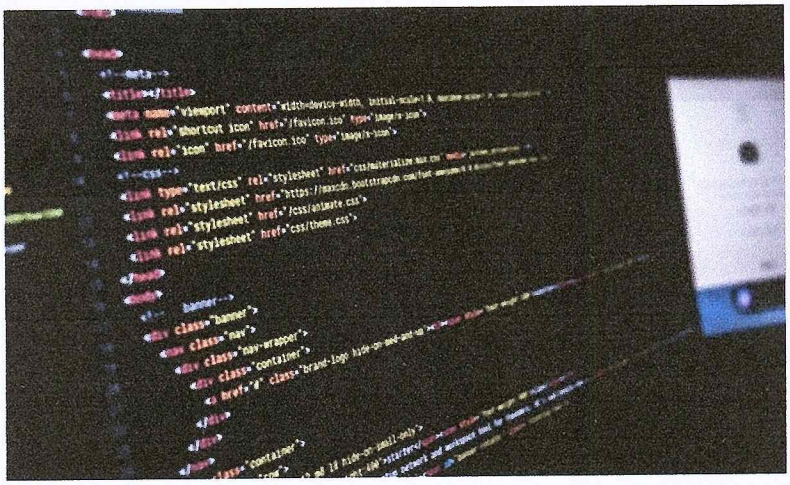


Figure 16. Sublime as the text editor using Php in programming

Backing up file systems means copying file systems to removable media (such as tape) to safeguard against loss, damage, or corruption. Restoring file systems means copying reasonably current backup files from removable media to a working directory. Backing up files is one of the most crucial system administration functions. You should perform regularly scheduled backups to prevent loss of data due to: System crashes, Accidental deletion of files Natural disasters (for example, fire, hurricanes, earthquakes), Problems when reinstalling or upgrading a system.

Chapter 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the significant of findings, conclusions and recommendations of the study.

Summary of Findings

The study aimed to develop a departmentalize entrance examination system to assess the current level ability of the incoming first year student. With this, and in reference to the different results presented in previous chapter, the following summary of results are made:

1. The system software was designed and coded by using the PhpMyAdmin where the data store in the database during execution of the system. Database design was conducted of produce a detailed data model for the database, which is control by the server Xampp.
2. The study developed the automated entrance examination system for Samar State University that creates, modifies, updates, store student records and perform students processes and transactions. It can give users ability for workflow, storage, retrieval and security. It was effective in terms of system performance, security , accuracy and it is user friendly.

3. Beta-testing was conducted to the different Colleges to come up with an evaluation on how efficient the system was. Multiple regression analyses were conducted to answer this research question. College entrance examination test scores are generally significant predictors of students academic performance during their first year level. A five days regular working hour to test the development system in terms of system performance, security , accuracy and it is user friendliness.
4. The system was reusable, meaning that it can be further expanded or more features can still be added into the system to strengthen and perform better.

Conclusion

Based on findings of the study, the following conclusions were considered:

1. The research project was successfully designed and developed for entrance examination system. The entire system used multiple choice type of questions and blocking access. This system approach is believed to offer such automatic assessment. It can also be used to promote more effective learning by testing a range of skills, knowledge and understanding.
2. University entrance exam scores are based on subjects that are regarded as essential prerequisite from the different colleges courses. In addition, storage and retrieval was also available from storage of the data records. Moreover, security feature also provided to prevent unauthorize access.

3. The data revealed that the entrance examination conform to the desired purposes of the study which was to have a system software. The development system was efficient in terms of system performance, security, accuracy and it is user friendliness. The growing population of students in Samar State University ensures the need for an automatic means of assessment. The system can guarantee that the right student would have access to the system and take the entrance examination. It led to unique possibilities concerning the item and test development.
4. The researcher successfully tested the functionality of the system. It has the advantage of being easy to administer, ability to offer applicants instant results, easy verification, devoid of paper work and long-time involved in marking examination scripts which in most cases are prone to errors and misplacement of some scripts due to the large volume of scripts that has to be marked and accessed. The system also helps the administrator from difficulty tedious works as well as the examinees quickly access the results thereby promoting efficient distance education system.

Recommendations

Based on the findings and conclusions drawn from the study, the following measures are hereby recommended:

1. The future proponents must develop a wider scope of the study.

2. Improve the developed system into mobile device.
3. It is being encouraged that students taking the Departmentalize exam must know how to use the mouse and computer.
4. This study will serve as guide for future researcher in dealing with similar studies.
5. The test developer should still perform due diligence in ensuring the reliability and validity of tests.
6. The proposed system should have the capacity to capture graph based on the behavior that a student had during taking examination.
7. Implementation of the system requires user orientation to fully familiarize the functionality of the system.
8. Additional feature to the system like the capabilities of Learning Management System (LMS).
9. Future researcher should venture to add features in the system like item analysis for the test items and identify low and good performance students.

Chapter 6

PRODUCT TECHNICAL DESCRIPTION

I. Software Description

Table 5

Software Description

Software	Description
Sublime Text Editor	The application where the code has been written
XAMPP	The application that serves as the local web server and at same time database of the developed system
Web Browser	The application used for viewing the output of the developed system.
PhpMyAdmin	Free software tool written in PHP, intended to handle the administration of MySQL over the Web. PhpMyAdmin supports a wide range of operations on MySQL and MariaDB.
Development of Departmentalize Entrance Examination For Samar State University	The developed system is designed to automated entrance examination a solution for the fastest and easiest way in processing during examination in every program. System that should be used by the examinee using a computer to access in taking the entrance examination instead of using paper and pencil. This entrance examination system is designed to assist the college department. The design of the system is simple and can be easily understood. The examinee answers the question on the computer system, where question is programmed and visually displayed on the system's screen in an interactive form. It is kind of directly presentation

into a server at the end of the examination. Since the departmentalize examination is examined by the computer, time cost of manual examination is saved.

II. Product Development

The researcher used the Fuzzy Front End (FFE) as the product development framework.

a. Identification of design criteria

b. Idea Analysis

c. Concept Genesis

d. Prototyping

e. Product Development

III. Cost and Benefit Analysis

Table 6

Cost and Benefit Analysis

ITEMS	AMOUNT
Computer	11,000.00
Laptop	21,500.00
Network cable	30.00
RJ 45	40.00
Total	**P 71,500.00**

IV. Operations Manual

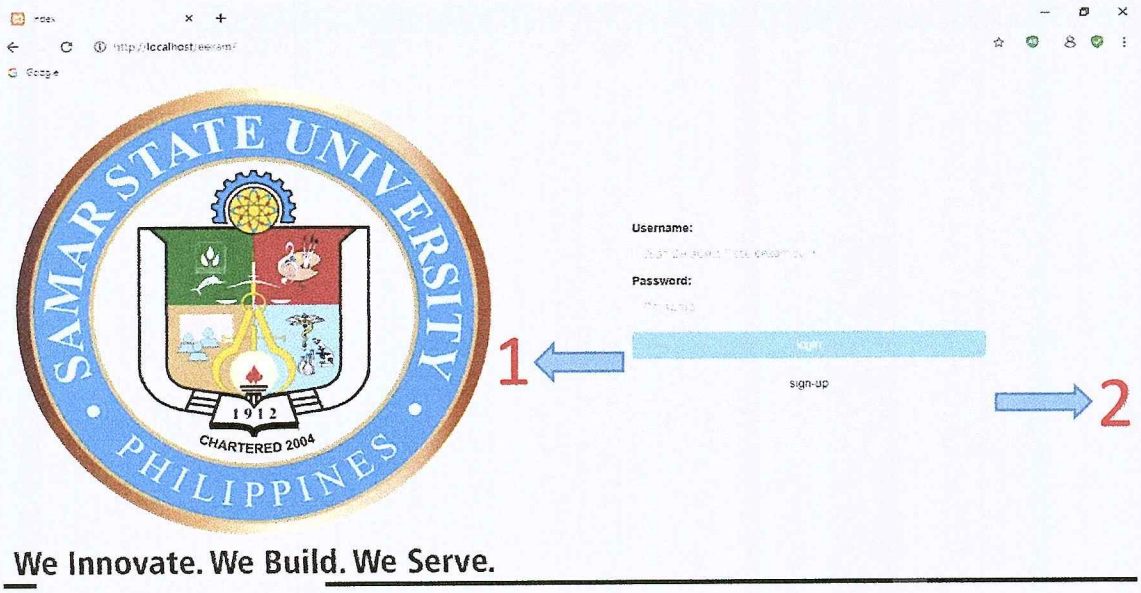


Figure 17. Entrance Examination Page

1. General purpose login page of the system. The administrator, teacher, and student will be using the same login page of the system
2. Sign-up. Registration for the student/s who doesn't have an account yet.

Administrator

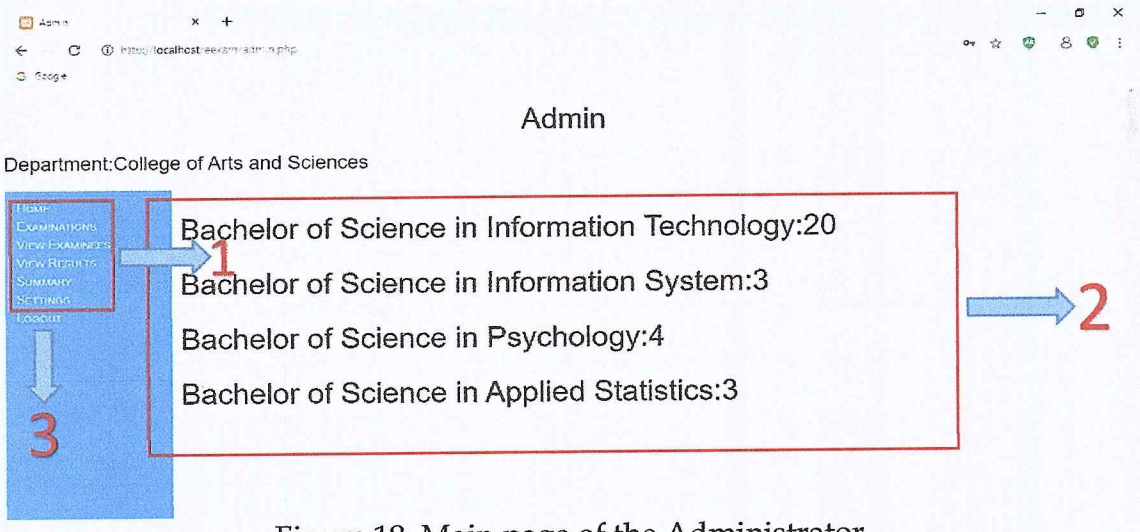


Figure 18. Main page of the Administrator.

1. Home. Shows the different options that the administrator can do.
2. It shows the course of every colleges from the "Home" page.
3. Logout. Exit from the admin account.

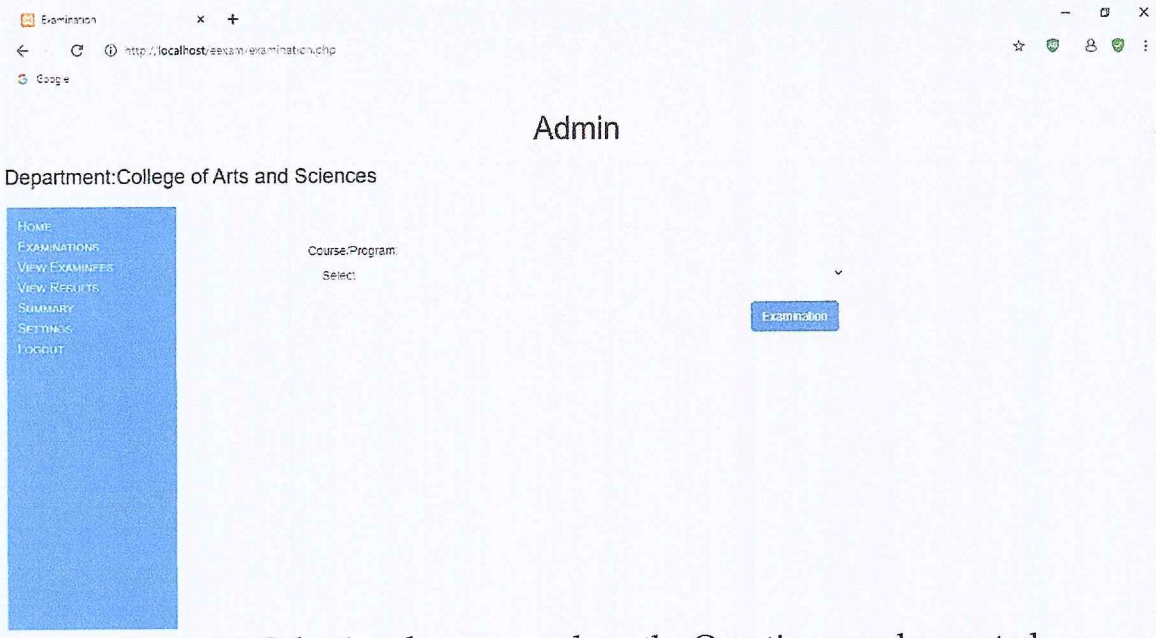


Figure 19. Selecting the course where the Questions can be created.

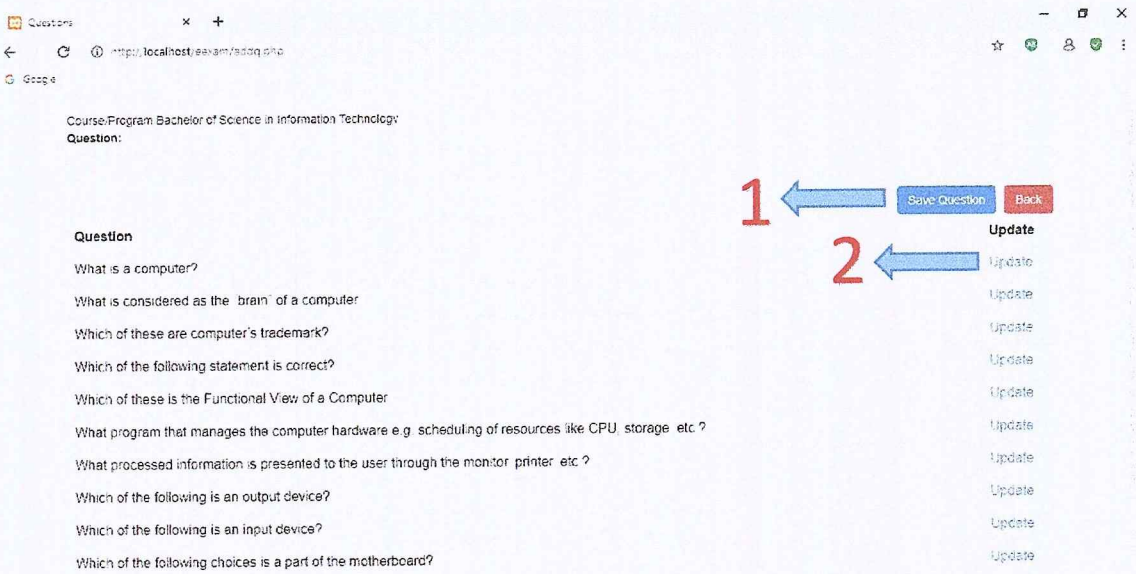


Figure 20. Questionnaire Page.

1. Section where questions is created, added and saved.
2. Update. To add and edit questions and choices from the question section.

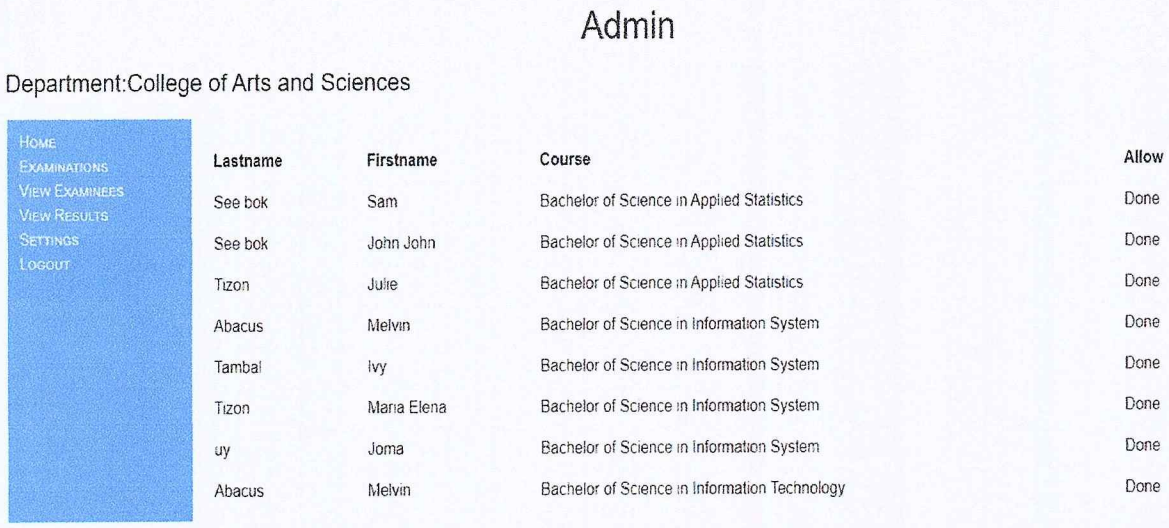


Figure 21. View Examinees.

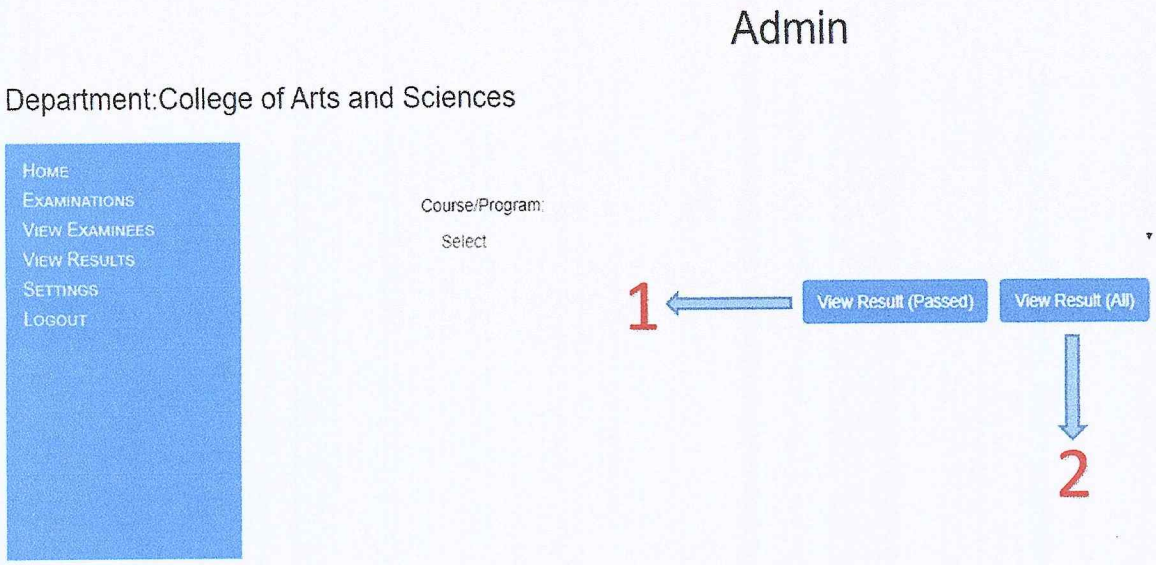
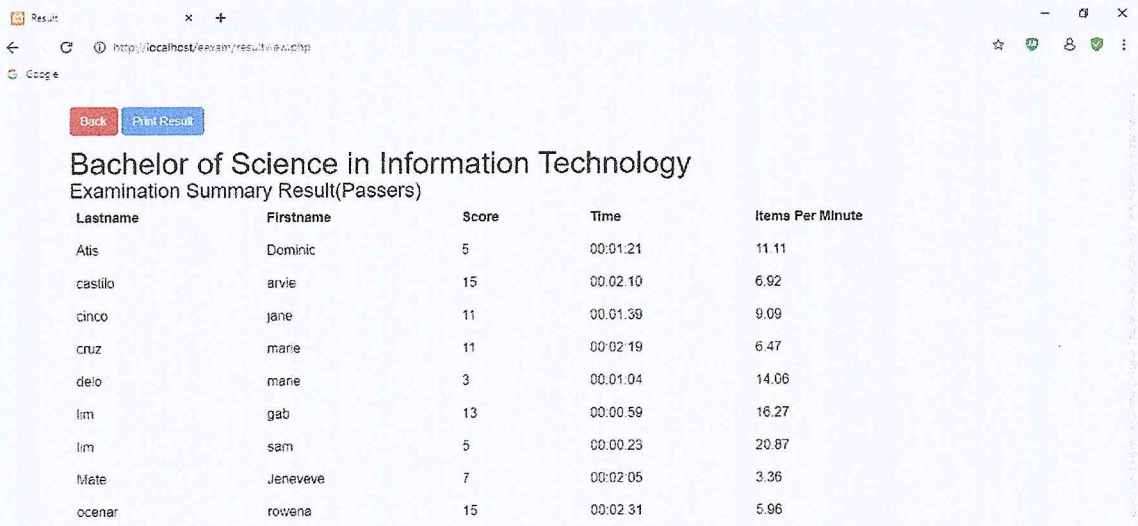


Figure 22. Result of the Examinees.

1. Summary result of those examinees who passed the examination in every courses.
2. Results of all the examinees who took the examination in every courses.



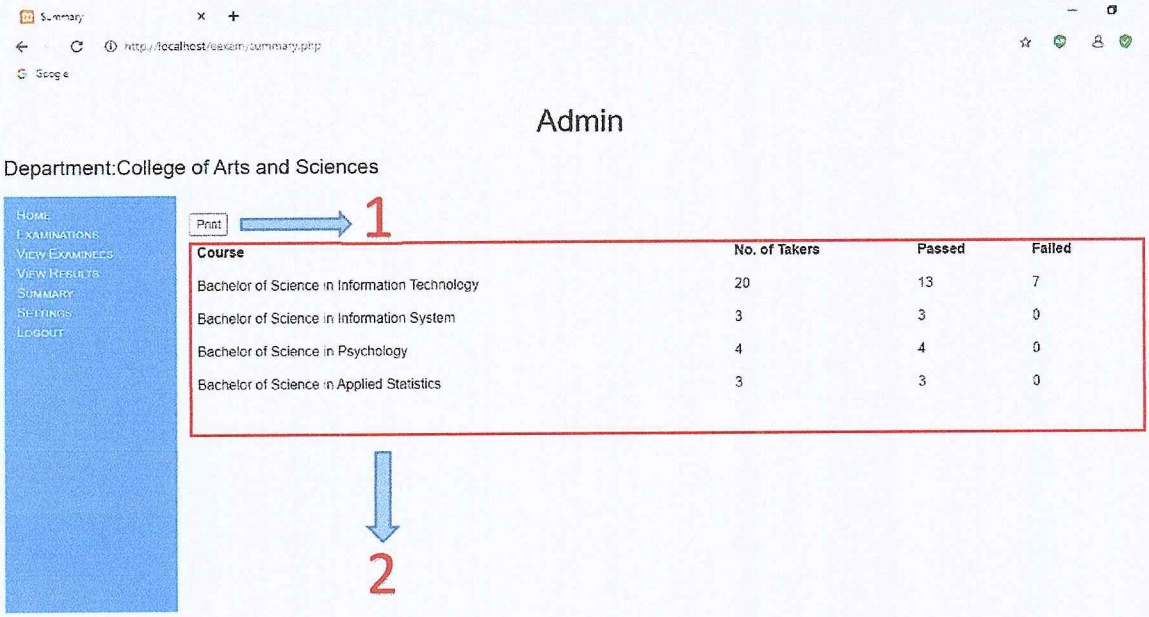
Back Print Result

Bachelor of Science in Information Technology

Examination Summary Result(Passers)

Lastname	Firstname	Score	Time	Items Per Minute
Atis	Dominic	5	00:01:21	11.11
castilo	arvie	15	00:02:10	6.92
cinco	jane	11	00:01:39	9.09
cruz	marie	11	00:02:19	6.47
delo	marie	3	00:01:04	14.06
lim	gab	13	00:00:59	16.27
lim	sam	5	00:00:23	20.87
Mate	Jeneveve	7	00:02:05	3.36
ocenar	rowena	15	00:02:31	5.96

Figure 23. Examination Summary Result of Passers.



Admin

Department:College of Arts and Sciences

HOME
EXAMINATIONS
VIEW EXAMINEES
VIEW RESULTS
SUMMARY
SETTINGS
LOGOUT

Print 1

Course	No. of Takers	Passed	Failed
Bachelor of Science in Information Technology	20	13	7
Bachelor of Science in Information System	3	3	0
Bachelor of Science in Psychology	4	4	0
Bachelor of Science in Applied Statistics	3	3	0

2

Figure 24. Summary Result of all the examinee in different courses.

1. Print the summary result of all the examinees.

2. Summary result of the examinees in every colleges by program.

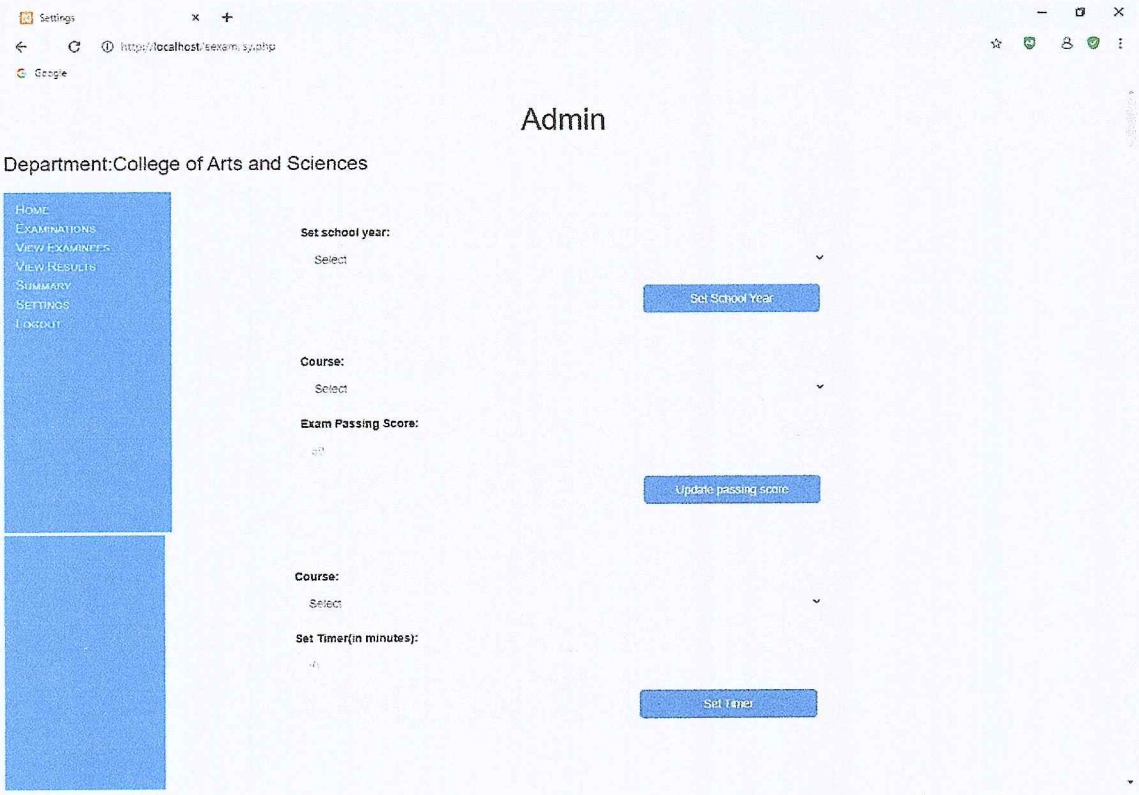


Figure 25. Setup School year's semester, update passing score and Set Timer.

In this figure sets up, the School year and the Semester by the authorized administrator. Further, it follows the setting up of passing score level of the examinee in the Exam Passing Score Section as well as setting the timer.

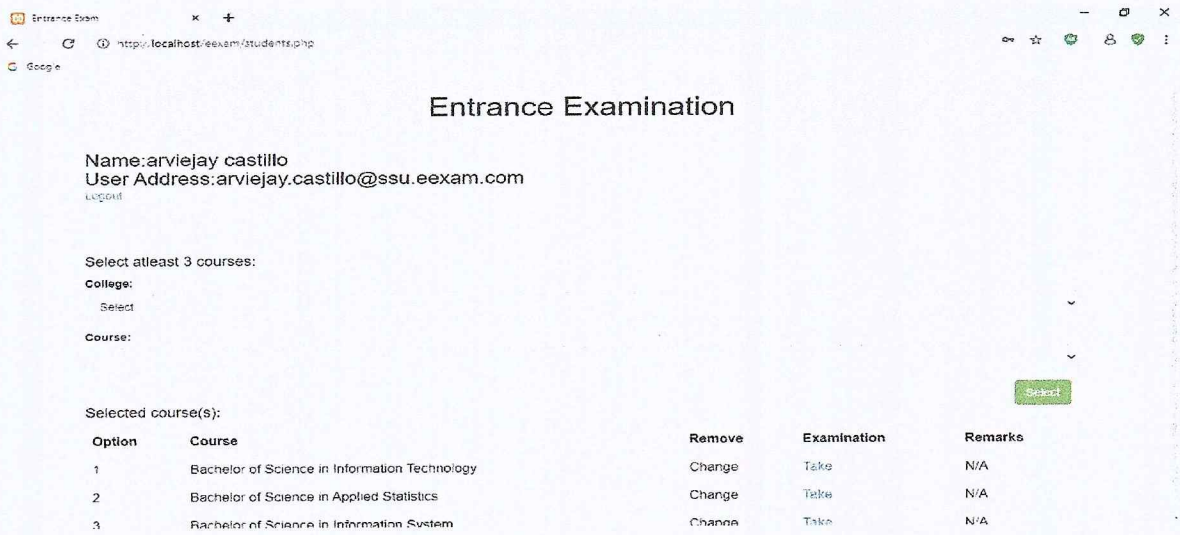


Figure 26. Selecting three courses to be taken by the examinee.

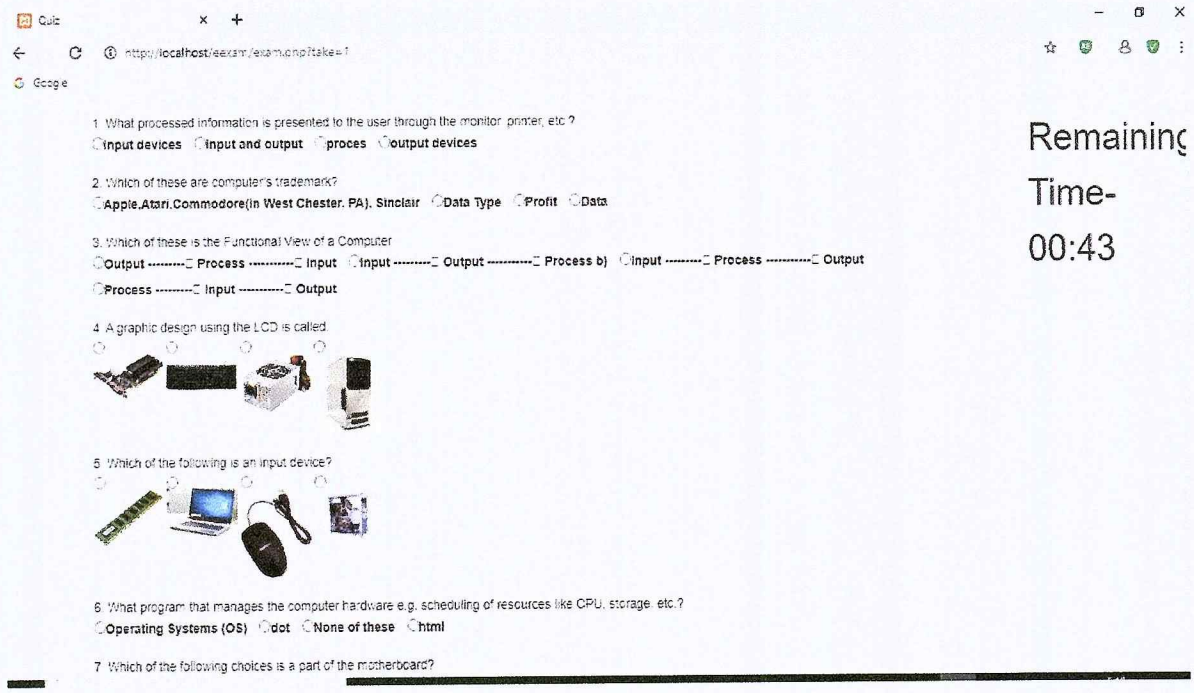


Figure 27. The Examination Page.

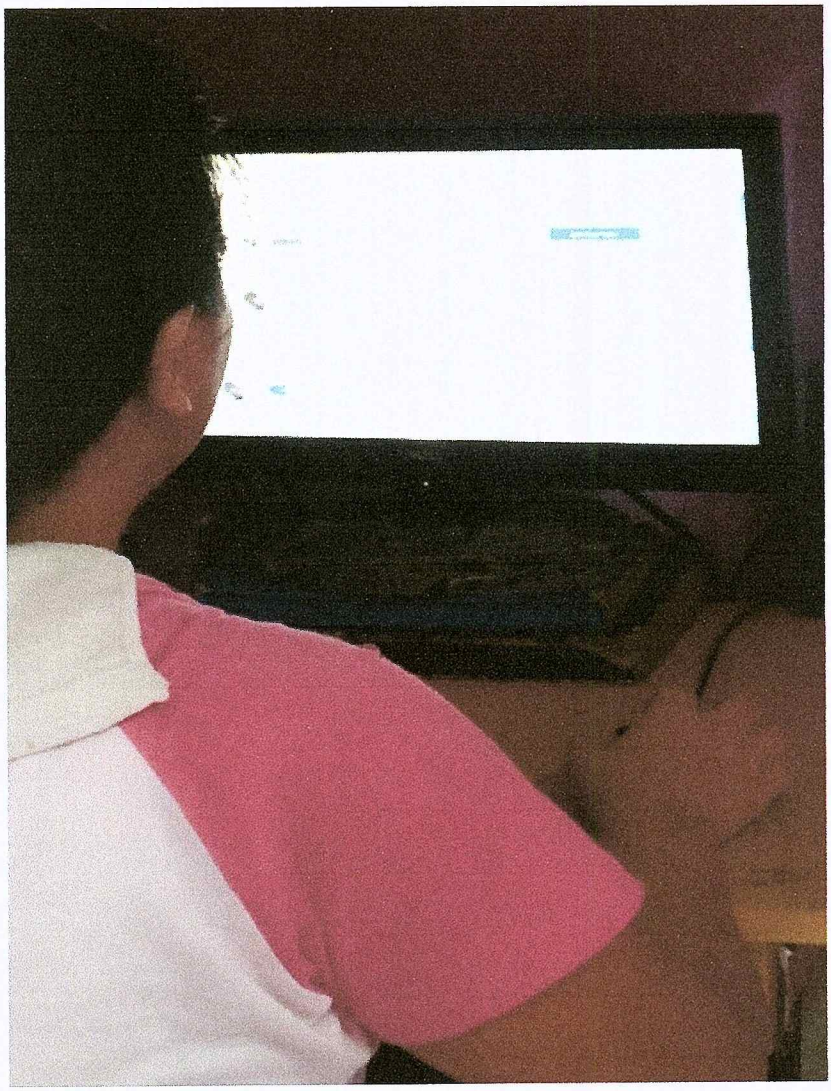


Figure 28. Example of the Student taking the examination.

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APPENDICES

APPENDIX A

Letter for Questionnaire

SAMAR STATE UNIVERSITY
Arteche Blvd., Catbalogan City, Philippines 6700
College of the Deans | College of Graduate Studies

We Innovate. We Build. We Serve.

January 6, 2020

ESTEBAN A. MALINDOG, Ph.D.
Dean, College of Graduate Studies
Catbalogan City, Samar

Sir/Madam:

The undersigned is currently conducting a research entitled "Departmentalized Examination System" as for fulfillment of the degree Masters of Science in Information Technology.

In connection with this, I would like to request your favorable approval for the conduct of beta testing of my developed system to selected first year students. Further, she expresses sincere gratitude for supporting aforementioned requirements.

Thank you very much.

Very truly yours,

(SGD.) MARIA ELENA B. TIZON
Proponents

Noted by:

(SGD.) MARYJES G. CALADES, Ph. D.
Thesis Adviser

Approved by:

(SGD.) ESTEBAN A. MALINDOG, Ph.D.
Dean, College of Graduate Studies

Letter for Questionnaire

SAMAR STATE UNIVERSITY
Arteche Blvd., Catbalogan City, Philippines 6700
College of the Deans | College of Arts and Sciences

We Innovate. We Build. We Serve.

January 6, 2020

FLORABELLE B. PATOSA, Ph. D.
Dean, College of Arts and Sciences
Catbalogan City, Samar

Sir/Madam:

The undersigned is currently conducting a research entitled "Departmentalized Examination System" as for fulfillment of the degree Masters of Science in Information Technology.

In connection with this, I would like to request your favorable approval for the conduct of beta testing of my developed system to selected first year CAS students. Further, she expresses sincere gratitude for supporting aforementioned requirements.

Thank you very much.

Very truly yours,

(SGD.)MARIA ELENA B. TIZON
Proponents

Noted by:

(SGD.) MARYJES G. CALADES, Ph. D.
Thesis Adviser

Approved by:

(SGD.) FLORABELLE B. PATOSA, Ph. D.
Dean, College of Arts and Sciences

Letter for Questionnaire

SAMAR STATE UNIVERSITY
Arteche Blvd., Catbalogan City, Philippines 6700
College of the Deans | College of Education

We Innovate. We Build. We Serve.

January 6, 2020

GINA U. ESPAÑO, Ph.D.
Dean, College of Education
Catbalogan City, Samar

Sir/Madam:

The undersigned is currently conducting a research entitled "Departmentalized Examination System" as for fulfillment of the degree Masters of Science in Information Technology.

In connection with this, I would like to request your favorable approval for the conduct of beta testing of my developed system to selected first year Education students. Further, she expresses sincere gratitude for supporting aforementioned requirements.

Thank you very much.

Very truly yours,

(SGD.)MARIA ELENA B. TIZON
Proponents

Noted by:

(SGD.) MARYJES G. CALADES, Ph. D.
Thesis Adviser

Approved by:

(SGD.) GINA U. ESPAÑO, Ph.D.
Dean, College of Education

Letter for Questionnaire

SAMAR STATE UNIVERSITY
Arteche Blvd., Catbalogan City, Philippines 6700
College of the Deans | College of Engineering

We Innovate. We Build. We Serve.

January 6, 2020

ENGR. MEDDY S. MAGARING.
Dean, College of Engineering
Catbalogan City, Samar

Sir/Madam:

The undersigned is currently conducting a research entitled "Departmentalized Examination System" as for fulfillment of the degree Masters of Science in Information Technology.

In connection with this, I would like to request your favorable approval for the conduct of beta testing of my developed system to selected first year Engineering students. Further, she expresses sincere gratitude for supporting aforementioned requirements.

Thank you very much.

Very truly yours,

(SGD.) MARIA ELENA B. TIZON
Proponents

Noted by:

(SGD.) MARYJES G. CALADES, Ph. D.
Thesis Adviser

Approved by:

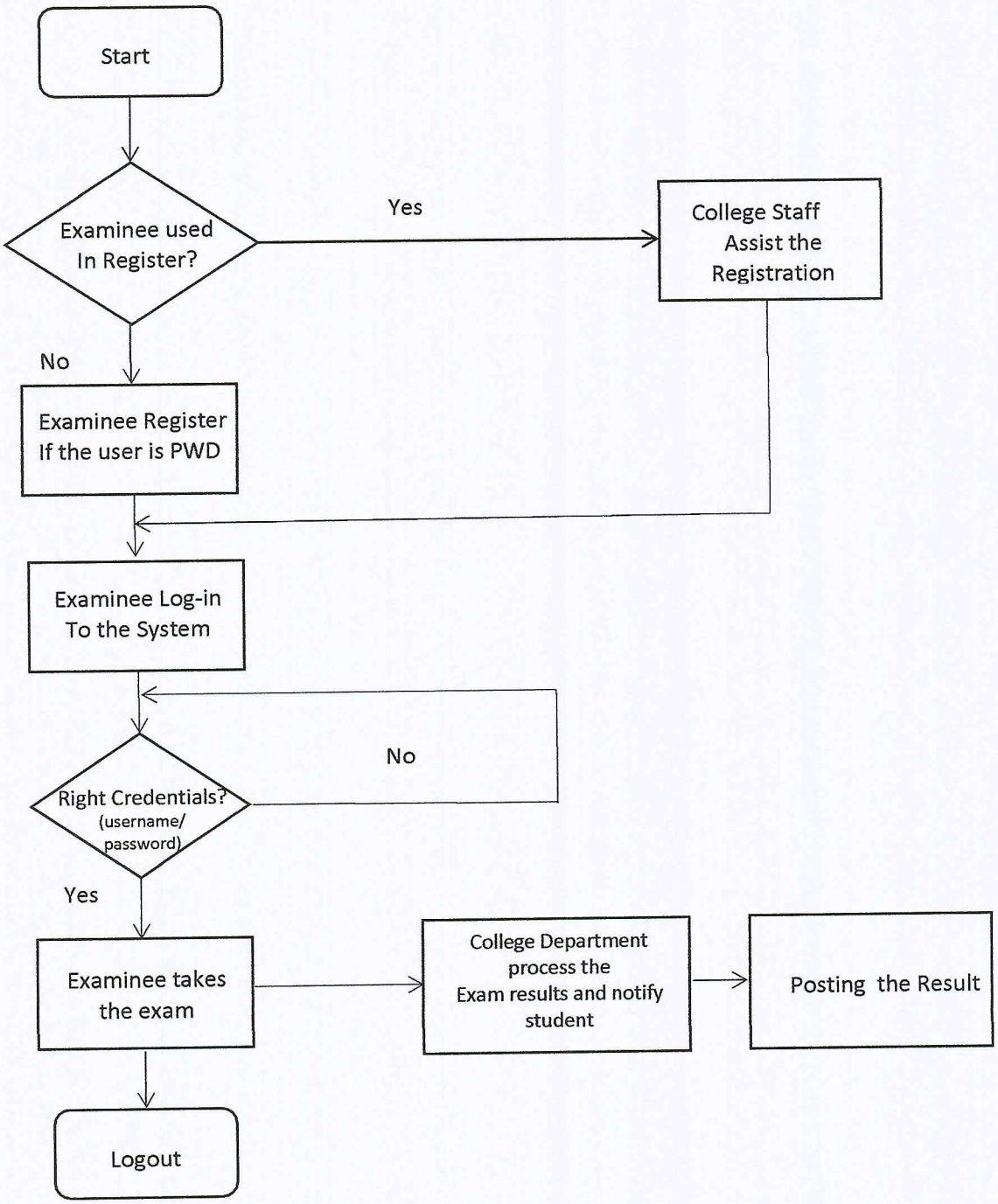
(SGD.) ENGR. MEDDY S. MAGARING
Dean, College of Engineering

APPENDIX B

SAMAR STATE UNIVERSITY
Arteche Blvd., Catbalogan City, Philippines 6700
College of the Deans | College of Graduate Studies

We Innovate. We Build. We Serve.

System Flow Chart



APPENDIX C

SYSTEM SOURCE CODE

```
<?php
        include 'connection/cstring.php';
        include 'includes/sessionheader.php';
        include 'includes/bootstrapinclude.php';
?>
<!DOCTYPE html>
<html>
<head>
        <title>Examination</title>
</head>
<body>
                <?php include 'headeraside.php'; ?>
                <form method="post" action="">
<div class="well" style="width:50%; margin-right: auto;margin-left: auto;">
<div class="form-group">
```

```
Course/Program:

<select class="form-control" value="exam" id="exam" name="exam">

<option value="">Select</option>

<?php

$result1=$conn->query("select tbl_course.CourseID,tbl_course.Course from

tbl_college,login,tbl_course where login.id='$id' and

tbl_college.CollegeID=login.department and

tbl_course.CollegeID=tbl_college.CollegeID");

while($row1=mysqli_fetch_object($result1)){

?>

<option value="<?php echo $row1->CourseID; ?>"><?php echo $row1->Course;

?></option>

<?php } ?>

</select>

</div>

<div class="form-group">

<input type="submit" value="Examination" class="btn btn-primary pull-right"

id="Examination" name="Examination" style="margin-right:10px">
```

```
</div>

<br>

</div>

</form>

<?php

if(isset($_POST['Examination'])){

$_SESSION['cid']=$_POST['exam'];

$cid=$_SESSION['cid'];

$result=$conn->query("select * from tbl_course where CourseID='$cid'");

$row=mysqli_fetch_object($result);

echo "Course/Program:".$row->Course;

header("Location: addq.php");

exit;

}

?>

</body>

</html>
```

```
<?php
        include 'connection/cstring.php';
        include 'includes/sessionheader.php';
        include 'includes/bootstrapinclude.php';
?>
<!DOCTYPE html>
<html>
<head>
        <title>Quiz</title>
        <?php include 'includes/bootstrapinclude.php' ?>
                <!--<script type='text/javascript'>
                        var count = 0;
                        var myInterval;
                        // Active
                        window.addEventListener('focus', stopTimer);
                        // Inactive
                        window.addEventListener('blur', startTimer);
```

```
function timerHandler() {
 count++;
 if (count>5) {
        alert("Operation timeout. Avoid minimizing window
while evaluation is ongoing.");
window.location.reload(true);
 }
}
// Start timer
function startTimer() {
 console.log('focus');
 myInterval = window.setInterval(timerHandler, 1000);
}
// Stop timer
function stopTimer() {
 window.clearInterval(myInterval);
}
```

```
</script>-->

<?php

        $id=$_SESSION['id'];

?>

<?php

        if(isset($_GET['take'])){

                $_SESSION['take']=$_GET['take'];

                $take=$_SESSION['take'];

                $result3=$conn->query("select * from tbl_crquiz where userID='$id'

                and courseID='$take'");

                $count=mysqli_num_rows($result3);

                        if ($count>0){

                        header("Location: students.php");

                exit;

                        }

                        else{

                                $resulttime=$conn->query("select  time,items  from

                                tbl_passing where courseID='$take'");
```

```
                $rowtime=mysqli_fetch_object($resulttime);
                $_SESSION['time']=$rowtime->time;
                $items=$rowtime->items;
                $qcountresult=$conn->query("select count(*) as
                qcount from tbl_quizq where courseID='$take'");
                $qcountrow=mysqli_fetch_object($qcountresult);
                $qcount=$qcountrow->qcount;
                $result=$conn->query("select * from tbl_quizq where
                courseID='$take' order by rand() limit $items");
            }
        }
?>
        <script type="text/javascript">
            alert("Submit the test before the time expires. Godbless")
        </script>
        <script type="text/javascript">
            function startTimer(duration, display) {
            var timer = duration, minutes, seconds;
```

```
setInterval(function () {
minutes = parseInt(timer / 60, 10);
seconds = parseInt(timer % 60, 10);
minutes = minutes < 10 ? "0" + minutes : minutes;
seconds = seconds < 10 ? "0" + seconds : seconds;
        display.textContent = minutes + ":" + seconds;
      if (--timer < 0) {
        timer = duration;
      }
   if (timer==0) {
        location.href ="students.php";
   }
   }, 1000);
};
$(document).ready(function () {
   var minutes = 60 * <?php echo $_SESSION['time']; ?>,
      display = document.querySelector('#time');
```

```
                startTimer(minutes, display);

            });

 $(document).ready(function() {

 var timer = setInterval(function() {

  var count = parseInt($('#theTarget').html());

  if (count >= 0) {

   $('#theTarget').html(count + 1);

  } else {

   clearInterval(timer);

  }

 }, 1000);

});

function prepareDiv() {

  document.getElementById("theTargethidden").value =
document.getElementById("theTarget").innerHTML;



}
```

```
        </script>
        <style type="text/css">
            #tcontainer{
            }
            .time1{
                font-size: 40px;
                position: fixed;
                margin-left: 80%;
            }
        </style>
</head>
<body>
<?php
        if (isset($_POST['submit'])){
            $x=$_POST['theTargethidden'];
            $time1=gmdate("H:i:s", $x);
            $take=$_SESSION['take'];
```

```
$result2=$conn->query("select * from tbl_quizq where
courseID='$take'");
$i=1;
$sum=0;
$item=0;
while($row2=mysqli_fetch_object($result2)){
$item=$item+1;
        $a=$_POST[$i];
        if($a==$row2->Aid){
                $sum=$sum+1;
        }
        $i++;
}
$_SESSION['sum']=$sum;
$_SESSION['item']=$item;
$_SESSION['take'];
$ips=($item*60)/$x;
```

```
$result3=$conn->query("select * from tbl_crquiz where tid='$id'       and
courseID='$take'");
$count=mysqli_num_rows($result3);
if ($count>0){
header("Location: students.php");
exit;
}
else{
$csy=$_SESSION['csy'];
$take=$_SESSION['take'];
$conn->query("INSERT   INTO
tbl_crquiz(userID,courseID,score,noofitem,sy,time1,ips)
VALUES ('$id','$take','$sum','$item','$csy','$time1','$ips')");
$sql="update ereg set remarks='Done' where tid='$id' and course='$take'";
if (mysqli_query($conn, $sql)) {
}
```

```
header("Location: Acknowledgement.php");
                exit;
            }
        }
?>
        <div class="container">
                <div class="row">
                    <div>
                <div>
<div class="time1">Remaining Time-<span id="time">00:00</span></div>
</div>
<form action="" method="post" style="margin-top: 15px;" id="form"
onsubmit="prepareDiv()">
<div class="form-group">
<div id='theTarget' style="display: none;">0</div>
<input type="hidden" name="theTargethidden" id="theTargethidden">
<?php
```

```
$i=1;

while($row=mysqli_fetch_object($result)){

$qid=$row->Qid;

?>

<div class="col-lg-12">

<?php echo $i.". ".$row->Question; ?>

<div class="form-group">

<?php

$result1=$conn->query("select

tbl_quizc.cNumber,tbl_quizc.choice,tbl_quizq.imgornot from tbl_quizq,tbl_quizc

where tbl_quizc.qid='$qid' and tbl_quizq.Qid=tbl_quizc.qid order by rand()");

while($row1=mysqli_fetch_object($result1)){

?>

<!--text-->

<?php

if($row1->imgornot==0){

?>

<label name='<?php echo $i ?>'>
```

```
<span style="margin-right: 10px;"><input type="radio" name='<?php echo $i ?>'
value='<?php echo $row1->cNumber; ?>'><?php echo $row1->choice?></span>
</label>
<?php
}else{
$image=$row1->choice;
$image_src="imgc/".$image;
?>
<!--text-->
<!--image-->
<label name='<?php echo $i ?>'>
<span style="margin-right: 10px;"><input type="radio" name='<?php echo $i ?>'
value='<?php echo $row1->cNumber; ?>'>
<img src="<?php echo $image_src; ?>" alt="" class="img-responsive"
style="width: 80px;"></span>
</label>
<!--image-->
<?php } } ?>
```

```
</div>

</div>

<?php $i++; } ?>

</div>

<div class="form-group">

<input type="submit" value="Submit" class="btn btn-success pull-right"

id="submit" name="submit" style="margin-right: 10px;margin-bottom: 20px">

                                    </div>

                                </form>

                            </div>

                        </div>

                </div>

</body>

</html>

<header class="banner">

<h1>Admin</h1>

</header>
```

```
<?php

$id=$_SESSION['id'];

$result=$conn->query("select tbl_college.College,tbl_college.CollegeID from

tbl_college,login where login.id='$id' and

tbl_college.CollegeID=login.department");

$row = mysqli_fetch_object($result);

$_SESSION['cID']=$row->CollegeID;

$cID=$_SESSION['cID'];

?>

<?php

$resultcsy=$conn->query("select csy from tbl_csy where collegeID='$cID'");

$rowcsy = mysqli_fetch_object($resultcsy);

$csy=$rowcsy->csy;

$_SESSION['csy']=$csy;

?>

<h3>Department:<?php echo $row->College; ?></h3>

<hr>

</div>
```

```
                </div>

                <aside class="aside">

<ul>

<li><a href="admin.php">Home</a></li><br>

<li><a href="examination.php">Examinations</a></li><br>

                                <li><a href="list.php">View

        Examinees</a></li><br>

        <li><a href="result.php">View    Results</a></li><br>

        <li><a href="summary.php">Summary</a></li><br>

                                <li><a href="sy.php">Settings</a></li><br>

                                <li><a href="session.php">Logout</a></li><br>

                        </ul>

                </aside>

<?php

include 'connection/cstring.php';

include 'includes/sessionheader.php';

?>
```

```
<?php include 'headeraside.php'; ?>

<?php

        $csy=$_SESSION['csy'];

        $id=$_SESSION['id'];

$resultcourse=$conn->query("select distinct
tbl_course.Course,tbl_Course.CourseID from tbl_college,tbl_course,login where
login.id='$id' and tbl_course.CollegeID=login.department");

while($rowcourse =mysqli_fetch_object($resultcourse)){

?>

<div class="holder">

<h1><?php echo $rowcourse->Course;

$resultcount=$conn->query("select * from tbl_crquiz where
courseID='$rowcourse->CourseID' and sy='$csy'");

$count=mysqli_num_rows($resultcount);

echo ":".$count;

?></h1>

</div>

<?php } ?>
```

```
<?php
        include 'connection/cstring.php';
        include 'includes/bootstrapinclude.php';
        session_start();
?>
<!DOCTYPE html>
<html>
<head>
<title>Index</title>
</head>
<body class="loginbody" style="background-image: url(img/ssulogo.png);">
<div style="margin-top:9%;"></div>
<div class="container">
        <div class="row">
                <div class="col-md-12">
                        <div class="col-md-6 col-md-push-6">
                                <div class="jumbotron">
```

```
<form action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]);?>"
method="post">
<div class="form-group">
<label for="user">Username:</label>
<input type="email" class="form-control" id="user" name="user" required
placeholder="Juan.DelaCruz@ssu.eexam.com">
</div>
<div class="form-group" style="margin-top:-8px">
<label for="pass">Password:</label>
<input type="password" class="form-control" id="pass1" name="pass1" required
placeholder="Password">
</div>
<div class="form-group">
<input type="submit" id="submit" name="login" class="btn btn-info btn-block"
value="login">
</div>
<div class="form-group">
<a href="registration.php" class="btn btn-default btn-block">sign-up</a>
```

```
                                    </div>
                                </form>
                                <div id="note" style="color:red"></div>
                            </div>
                        </div>
                    </div>
                </div>
</div>
<?php
        if (isset($_POST['login'])){
            $_SESSION['user']=$_POST['user'];
            $_SESSION['pass1']=$_POST['pass1'];
            $user=$_SESSION['user'];
            $pass1=$_SESSION['pass1'];
            $result=$conn->query("select * from login where username='$user'
            and password='$pass1'");
            $row = mysqli_fetch_assoc($result);
```

```
if(!empty($row)){
        if ($row['type']=="0"){
                $_SESSION['login'] = true;
                $_SESSION['id']=$row['id'];
                header("Location: admin.php");
        exit;
}
else{
                $_SESSION['login'] = true;
                $_SESSION['id']=$row['id'];
                header("Location: students.php");
        exit;
}
}
else{
        echo "<script>
        var x='*Login failed. Please try again.'
```

```
                    document.getElementById('note').innerHTML=x;

                    </script>";

                }

        }

?>

</body>

</html>

<?php
include 'includes/bootstrapinclude.php';
?>

<!DOCTYPE html>
<html>
<head>
        <title>Admin</title>
</head>
<body>
<div id="data"></div>
<script type="text/javascript">
            function dis(){
                        xmlhttp=new XMLHttpRequest();
                    xmlhttp.open("GET","adminautorefresh.php",false);
                            xmlhttp.send(null);

document.getElementById("data").innerHTML=xmlhttp.responseText;
                    }

                dis();
        setInterval(function(){
```

```
dis();
},1000);
</script>
</body>
</html>


<?php
 include 'connection/cstring.php';
include 'includes/bootstrapinclude.php';
            session_start();
?>

<!DOCTYPE html>
<html>
<head>
        <title>Index</title>
   <script type="text/javascript">
                                    var check = function() {
                        if (document.getElementById('password').value ==
                          document.getElementById('cpassword').value) {
                        document.getElementById('message').style.color = 'green';
                        document.getElementById('message').innerHTML =
'Password Matched.';
                                                    }
                                                  else {
                        document.getElementById('message').style.color = 'red';
                        document.getElementById('message').innerHTML =
'Password do not match.';
                                                    }
                                                    }
                </script>
</head>
<body>

<?php
     if(isset($_POST['register'])){
                                    $fname=$_POST['fname'];
```

```
                                $mname=$_POST['mname'];
                                $lname=$_POST['lname'];
                                $contact=$_POST['contact'];
                                $password=$_POST['cpassword'];
                                $fname1=str_replace(' ', '', $fname);
                                $lname1=str_replace(' ', '', $lname);
                                $user=$fname1.".".$lname1."@ssu.eexam.com";

$result=$conn->query("select username from login where username='$user'");

$count=mysqli_num_rows($result);

if ($count>0) {
                    echo "
                    <script>
                                        alert('Username already exist.');
                    </script>";
                        }
                    else{

$conn->query("INSERT INTO
profile(firstname,middlename,lastname,contactnumber)
VALUES ('$fname','$mname','$lname','$contact')");

$resultlastid=$conn->query("select * from profile order by id desc limit 1");
$rowlastid=mysqli_fetch_object($resultlastid);
                        $lastID=$rowlastid->id;

                        $conn->query("INSERT INTO login
(id,username,password,type,department)
VALUES ('$lastID','$user','$password','1','0')");

    header("Location: index.php");
                    exit;

}
                        }
```

```
?>
<div class="container">
        <div class="row">
                        <div class="col-lg-12 well">

                                        <h1>Registration</h1>
                        </div>

                        </div>

                <div class="row" id="form">
<div class="col-lg-12">

                <form enctype="multipart/form-data" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]);?>" method="post">
<?php
                        include 'connection/cstring.php';
                    include 'includes/sessionheader.php';
                   include 'includes/bootstrapinclude.php';
?>

<!DOCTYPE html>
<html>
<head>
<title>Examination</title>
</head>
<body>

<?php include 'headeraside.php'; ?>

<form method="post" action="">
<div class="well" style="width:50%; margin-right: auto;margin-left: auto;"

                        <div class="form-group">
```

```
Course/Program

$result1=$conn->query("select tbl_course.CourseID,tbl_course.Course from
tbl_college,login,tbl_course where login.id='$id' and
tbl_college.CollegeID=login.department and
tbl_course.CollegeID=tbl_college.CollegeID");

                    while($row1=mysqli_fetch_object($result1)){

                                        ?>

                                    </select>

</di  <input type="submit" value="View Result (Passed)" class="btn btn-primary
pull-right" id="view" name="view2" style="margin-right:10px">

                                    </div>

<br</</form<?php ?><?php
exit;
}
?>
</body>
</html>

<div id="note"></div>
```

```
<input type="password" class="form-control" id="password" name="password"
required placeholder="Enter Desired Password" autocomplete="off"
onkeyup='check();'>

</form>
                </div>
                </div>
                </div>
<br>
<br>

</body>
</html>

<?php
                        include 'connection/cstring.php';
                    include 'includes/sessionheader.php';
                  include 'includes/bootstrapinclude.php';
?>

<!DOCTYPE html>
<html>
<head>
                                <title>Result</title>
</head>
<body>

<br>
<div class="container">
<div class="row">


                                <?php
```

```
                                                    $csy=$_SESSION['csy']
$resultview=$conn->query("select
profile.firstname,profile.lastname,tbl_crquiz.score,tbl_crquiz.noofitem,tbl_crquiz.
time1,tbl_crquiz.ips,tbl_passing.passing from
profile,tbl_crquiz,tbl_passing,tbl_csy where tbl_crquiz.courseID='$cid' and
tbl_crquiz.userID=profile.id and tbl_csy.collegeID='$cID' and
tbl_crquiz.sy='$csy' and tbl_passing.CourseID='$cid' and
tbl_csy.csy=tbl_crquiz.sy order by profile.lastname asc");
while($rowview=mysqli_fetch_object($resultview)){


</div>
</div>
</div>


 <iframe name="print_frame" width="0" height="0" frameborder="0"
src="about:blank"></iframe>
 <script type="text/javascript">
    function printDiv() {
      window.frames["print_frame"].document.body.innerHTML =
document.getElementById("printableTable").innerHTML;
      window.frames["print_frame"].window.focus();
      window.frames["print_frame"].window.print();
    }
 </script>
</body>
</html>


<?php
 include 'connection/cstring.php';

?>

<?php
```

```
if(isset($_POST['CollegeID'])){
 $CollegeID=$_POST['CollegeID'];
?>
      <option>Select</option>
                <?php
                   $result=$conn->query("select * from tbl_course where
CollegeID='$CollegeID'");
                          while($row=mysqli_fetch_object($result)){
                  ?>
<option value="<?php echo $row->CourseID; ?>"><?php echo $row->Course;
?></option>
<?php } }?><?php
<!DOCTYPE html>
<html>
<head>

<title>Acknowledgement</title>
<link rel="stylesheet" type="text/css" href="style1.css">
</head>
<body>

<div class="acknowledgement">
<h1>Test has been submitted. Result will be posted ASAP. Thank you!</h1>
<a href="students.php">Click here to exit</a>
</div>

</body>
</html>


<?php
  include 'connection/cstring.php';
include 'includes/sessionheader.php';
include 'includes/bootstrapinclude.php';
?>

<!DOCTYPE html>
<html>
```

```
<head>
        <title>Choices</title>
</head>
<body>
<?php
if(isset($_GET['edit'])){
$Qid=$_GET['edit'];

                        $result=$conn->query("select * from tbl_quizQ where
Qid='$Qid'");
}
?>

<?php
      if(isset($_POST['addc'])){
$c1=$_POST['choice1'];
$c2=$_POST['choice2'];
$c3=$_POST['choice3'];
$c4=$_POST['choice4'];
$question=$_POST['question'];
$conn->query("INSERT INTO tbl_quizc(choice,qid,cNumber)
$conn->query("INSERT INTO tbl_quizc(choice,qid,cNumber)
$conn->query("INSERT INTO tbl_quizc(choice,qid,cNumber)
$conn->query("INSERT INTO tbl_quizc(choice,qid,cNumber)



VALUES ('$c4','$Qid','4')");
header("Location: addq.php");
exit;
}
?>
<?php
```

```
    if(isset($_POST['addc2'])){
        extract($_POST);
  $targetDir = "imgc/";
  $allowTypes = array('jpg','png','jpeg','gif');
  $j=1;

foreach($_FILES['files']['name'] as $key=>$val){
$fileName = basename($_FILES['files']['name'][$key]);
$targetFilePath = $targetDir . $fileName;

move_uploaded_file($_FILES["files"]["tmp_name"][$key], $targetFilePath);
$conn->query("INSERT INTO tbl_quizc(choice,qid,cNumber)

VALUES ('$fileName','$Qid','$j++')");
$j++;
}

$sql="update tbl_quizQ set imgornot='1' where Qid='$Qid'";
                    if (mysqli_query($conn, $sql)) {
                    header("Location: addq.php");
                        exit;
                        }
                }

/*$div=explode('.', $name);
  $file_ext=strtolower(end($div));
                $unique_image=substr(md5(time()),0,10).'.'.$file_ext;
   $uploadpath=$unique_image;

//$file=$uploadpath . basename($_FILES['image']['name']);
```

```
//echo $uploadpath."<br>";

//select file type
$imageFileType=strtolower(pathinfo($uploadpath,PATHINFO_EXTENSION));
//echo $imageFileType."<br>";

//valid file extensions
$extension_arr=array("jpg","jpeg","png","gif");
//echo $extension_arr."<br>";

//check extension
if(in_array($imageFileType,$extension_arr)){
$conn->query("INSERT INTO tbl_quizc(choice,qid,cNumber)

move_uploaded_file($file_temp,"imgc/".$uploadpath);
}
}*/

?>
<a href="addq.php" class="btn btn-default" style="margin: 5px;">Back</a>
        <div class="container">
<div class="row">
<div>

<div class="form-group">
<!--for text-->

<form method="post" action="" id="text">
<!--for text-->
```

```
<!--for image-->
<form method="post" action="" id="image" enctype="multipart/form-data">
Select Image Files to Upload:

<!--for image-->
                    </div>
                    </div>
                    </div>
<script type="text/javascript">
   $(document).ready(function(){
           $("#image").hide();
      $("#checked").click(function (){
         if ($("#checked").prop("checked")){
            $("#image").show();
            $("#text").hide();
         }
         else{
            $("#image").hide();
            $("#text").show();
         }
      });
   });
</script>
</body>
</html>

<?php
  include 'connection/cstring.php';
include 'includes/sessionheader.php';
```

```
include 'includes/bootstrapinclude.php';
?>

<!DOCTYPE html>
<html>
<head>
        <title>Questions</title>
</head>
<body>

<br>
        <div class="container">
<div class="row">
                    <?php
                        $cid=$_SESSION['cid'];

                        $result=$conn->query("select * from tbl_course where
CourseID='$cid'");
<form method="post" action="">

                                        <div class="form-group">
</div>
</form>
<?php

}

?>
<div>

<table class="table tbl-responsive tbl-stripped">
                    </div>
```

```
                </div>
                </div>

</body>
</html>

<?php
include 'includes/bootstrapinclude.php';
?>
<!DOCTYPE html>
<html>
<head>
      <title>Examinees</title>
</head>
<body>

<div id="data"></div>
<script type="text/javascript">
function dis(){
 xmlhttp=new XMLHttpRequest();
xmlhttp.open("GET","listautorefresh.php",false);
xmlhttp.send(null);
document.getElementById("data").innerHTML=xmlhttp.responseText;

}

        dis();
        setInterval(function(){
                                        dis();
```

```
                },1000);
</script>

</body>
</html>

<?php
 include 'connection/cstring.php';
include 'includes/sessionheader.php';
include 'includes/bootstrapinclude.php';
?>
<?php
        if(isset($_GET['id1'])){
           $id=$_GET['id1'];
                    $sql="update ereg set allow='1' where eregid='$id'";
   if (mysqli_query($conn, $sql)) {

                    }
                    }

        if(isset($_GET['id2'])){
           $id=$_GET['id2'];
$sql="update ereg set allow='0' where eregid='$id'";
if (mysqli_query($conn, $sql)) {

}
}
                    ?>
<?php include 'headeraside.php'; ?>
```

```
        <div class="col-md-10">
<table class="table table-resposive table-stripped">
                    <tr>

            <th>Lastname</th>
             <th>Allow</th>
                    </tr>
                    <?php
          $id=$_SESSION['id'];

        $cID=$_SESSION['cID'];
$resultlist=$conn->query("select
profile.id,profile.firstname,profile.lastname,tbl_course.Course,tbl_course.CourseI
D,ereg.eregid from profile,tbl_college,tbl_course,ereg,login,tbl_csy where
login.id='$id' and tbl_college.CollegeID=login.department and
ereg.college=tbl_college.CollegeID and
tbl_course.CollegeID=tbl_college.CollegeID and tbl_csy.csy=ereg.sy and
tbl_csy.collegeID=tbl_course.CollegeID and profile.id=ereg.tid and
tbl_course.CourseID=ereg.course and tbl_csy.csy=ereg.sy order by
tbl_course.Course,profile.lastname");
while($rowlist = mysqli_fetch_object($resultlist)){
?>
<tr>

$countdone=mysqli_num_rows($resultdone);
$allow=$rowallow->allow;
```

```
if($allow==0){

}
                    ?>
                  </tr>
                <?php } ?>
                 </table>
                  </div>

<?php
include 'connection/cstring.php';
include 'includes/sessionheader.php';
include 'includes/bootstrapinclude.php';
?>

<!DOCTYPE html>
<html>
<head>
<title>Result</title>
</head>
<body>

<br>
<div class="container">
<div class="row">
```

```
<div>

<div id="printableTable">
<?php

$resultview=$conn->query("select
profile.firstname,profile.lastname,tbl_crquiz.score,tbl_crquiz.noofitem,tbl_crquiz.
time1,tbl_crquiz.ips,tbl_passing.passing from
profile,tbl_crquiz,tbl_passing,tbl_csy where tbl_crquiz.courseID='$cid' and
tbl_crquiz.userID=profile.id and tbl_csy.collegeID='$cID' and
tbl_crquiz.sy='$csy' and tbl_passing.CourseID='$cid' and
tbl_csy.csy=tbl_crquiz.sy order by profile.lastname asc");
</div>
</div>
</div>
 <iframe name="print_frame" width="0" height="0" frameborder="0"
src="about:blank"></iframe>
 <script type="text/javascript">
     function printDiv() {
       window.frames["print_frame"].document.body.innerHTML =
      document.getElementById("printableTable").innerHTML;
       window.frames["print_frame"].window.focus();
       window.frames["print_frame"].window.print();
     }
 </script>
</body>
```

```
</html>

?php
include 'includes/bootstrapinclude.php';
include 'connection/cstring.php';
include 'includes/sessionheader.php';
?>


<table class="table table-resposive table-stripped"><tr
<th>Option</th                    <th>Course</th>
                                  <th>Remove</th          <th>Option</th>
<th>Course</th>
<th>Remove</th>
<th>Examination</th>
<th>Remarks</th><th>Course</th>
<th>Remove</th>                  <th>Remarks</th>
                                   <th>Remarks</t


                                          </tr


                                          <?ph
                                          $i=1;
```

```
                                    $id=$_SESSION];          $result=$conn-
>query("select
<tr>
        $i=1;
        $id=$_SESSION['id'];
        $result=$conn->query("select
ereg.tid,ereg.remarks,ereg.eregid,ereg.course,ereg.allow,tbl_college.College,tbl_c
ourse.Course from tbl_course,tbl_college,ereg where ereg.tid='$id' and
tbl_college.CollegeID=ereg.college and tbl_course.CourseID=ereg.course");
while($row1=mysqli_fetch_object($result)):
?>
<tr>
        <td><?php echo $i; ?></td>
<td><?php echo $row1->Course; ?></td>
<?php
if($row1->allow==0){
?>
<td><a href="students.php?id1=<?php echo $row1->eregid;
?>">Change</a></td>
<?php
}
        else{
?>
<td>Change</td>
<?php } ?>
<!---------->
```

```
<?php
        if($row1->allow==1){
?>
<td><a href="exam.php?take=<?php echo $row1->course; ?>">Take</a></td>
<?php
        }
        else{
        ?>
        <td>Take</td>
<?php } ?>
<!---------->
<td><?php echo $row1->remarks; ?></td>
<?php $i++ ?>
</tr>
<?php endwhile; ?>
</table>


<?php
        include 'includes/bootstrapinclude.php';
        include 'connection/cstring.php';
        include 'includes/sessionheader.php';
?>
<!DOCTYPE html>
<html>
<head>
        <title>Entrance Exam</title>
        <script type="text/javascript">
```

```
            function getcourse(val)
            {
                $.ajax({
                    type:"POST",
                    url:"select.php",
                    data:'CollegeID='+val,
                    success: function(data){
                        $("#course").html(data);
                    }
                });
            }
        </script>
</head>
<body class="spage">
        <?php
            $resultcsy=$conn->query("select csy from tbl_csy");
            $rowcsy = mysqli_fetch_object($resultcsy);
            $csy=$rowcsy->csy;
            $_SESSION['csy']=$csy;
        ?>
        <div class="container" id="scontainer">
            <div class="row">
                <div class="col-md-12">
                    <div class="well">
                        <h1 class="sheader">Entrance
                        Examination</h1>
                    </div>
```

```
<?php
$id=$_SESSION['id'];
$result=$conn->query("select * from profile where
id='$id'");
$row = mysqli_fetch_object($result);
?>
<h3>Name:<?php echo $row->firstname." ".$row-
>lastname;
?></h3>
<?php
$id=$_SESSION['id'];
$result=$conn->query("select * from login where
id='$id'");
$row = mysqli_fetch_object($result);
?>
<h3>User Address:<?php echo $row->username;
?></h3>
<a href="session.php">Logout</a>
<hr>
<br>
<h4>Select atleast 3 courses:</h4>
<form method="post" action="">
<div class="form-group">
<label
for="college">College:</label>
<select class="form-
control" value="college" id="college" name="college"
onChange="getcourse(this.value);">
<option value="">Select</option>
<?php
```

```
$result=$conn->query("select * from
tbl_college");while($row=mysqli_fetch_object($result)){
?>
<option value="<?php echo $row->CollegeID; ?>"><?php echo $row->College;
?></option>
                <?php } ?>
                </select>
                </div>
<div class="form-group">
<label for="course">Course:</label>
<select class="form-control" value="course" id="course" name="course">
</select>
</div>
<div class="form-group">
<input type="submit" value="Select" class="btn btn-success pull-right"
id="select" name="select" style="margin-right:10px">
</div>
</form>
<?php
if(isset($_POST['select'])){
$id=$_SESSION['id'];
$collegeid=$_POST['college'];
$courseid=$_POST['course'];
$csy=$_SESSION['csy'];
$result2=$conn->query("select * from ereg where tid='$id'");
$count=mysqli_num_rows($result2);
if ($count>=3){
echo "<script>
```

```
alert('You already reached the maximum selection of courses.');
</script>";}
else{
$conn->query("INSERT INTO ereg(tid,college,course,remarks,allow,sy)
                                                    VALUES
('$id','$collegeid','$courseid','N/A','0','$csy')");
                                                }
                                            }
                                        ?>
                                        <?php
if(isset($_GET['id1'])){
$id=$_GET['id1'];
$sql="delete from ereg where eregid='$id'";
if (mysqli_query($conn, $sql)) {
        }
                                            }
                                        ?>
                                        <br>
                                        <h4>Selected course(s):</h4>
                                            <div id="data"></div>
                        </div>
                    </div>
        </div>
<script type="text/javascript">
        function dis(){
                xmlhttp=new XMLHttpRequest();
                xmlhttp.open("GET","studentautorefresh.php",false);
```

```
            xmlhttp.send(null);

        document.getElementById("data").innerHTML=xmlhttp.responseText;
        }
        dis();
        setInterval(function(){
            dis();
        },1000);
</script>
</body>
</html>


<?php
        include 'connection/cstring.php';
        include 'includes/sessionheader.php';
        include 'includes/bootstrapinclude.php';
?>
<!DOCTYPE html>
<html>
<head>
        <title>Summary</title>
</head>
<body>
            <?php include 'headeraside.php'; ?>
            <div class="col-md-10">
            <button class="Button Button--outline"
        onclick="printDiv()">Print</button>
```

```
<div id="printableTable">
    <table class="table table-bordered">
        <tr>
            <th>Course</th>
            <th>No. of Takers</th>
            <th>Passed</th>
            <th>Failed</th>
        </tr>
<?php
    $csy=$_SESSION['csy'];
    $id=$_SESSION['id'];
$resultcourse=$conn->query("select
tbl_course.Course,tbl_crquiz.score,tbl_passing.passing,count(tbl_crquiz.courseID
) as total,sum(case when tbl_crquiz.score>=tbl_passing.passing then 1 else 0 end)
as passed,sum(case when tbl_crquiz.score<tbl_passing.passing then 1 else 0 end)
as failed from tbl_crquiz,tbl_course,login,tbl_passing where login.id='$id' and
tbl_course.CollegeID=login.department  and
tbl_crquiz.courseID=tbl_course.CourseID and
tbl_passing.CourseID=tbl_course.CourseID group by tbl_crquiz.courseID");
while($rowcourse =mysqli_fetch_object($resultcourse)){
?>
<tr>
            <td><?php echo $rowcourse->Course ;
?></td>
            <td><?php echo $rowcourse->total ; ?></td>
            <td><?php echo $rowcourse->passed ;
?></td>
```

```
                                    <td><?php echo $rowcourse->failed ; ?></td>
                                </tr>
                <?php
                }
                ?>
                </table>
                </div>
        </div>
 <iframe name="print_frame" width="0" height="0" frameborder="0"
src="about:blank"></iframe>
 <script type="text/javascript">
    function printDiv() {
window.frames["print_frame"].document.body.innerHTML =
document.getElementById("printableTable").innerHTML;
window.frames["print_frame"].window.focus();
 window.frames["print_frame"].window.print();
    }
 </script>
</body>
</html>


<?php
        include 'connection/cstring.php';
        include 'includes/sessionheader.php';
        include 'includes/bootstrapinclude.php';
?>
<!DOCTYPE html>
```

```
<html>
<head>
<title>Settings</title>
</head>
<body>
        <?php include 'headeraside.php'; ?>
                <form method="post" action="">
<div class="well" style="width:50%; margin-right: auto;margin-left: auto;">
<div class="form-group">
<label>Set school year:</label>
<select class="form-control" value="exam" id="exam" name="exam">
option value="">Select</option>
<?php
$result1=$conn->query("select * from tbl_sy");
while($row1=mysqli_fetch_object($result1)){
?>
<option value="<?php echo $row1->syid; ?>"><?php echo $row1->sy;
?></option>
<?php } ?>
</select>
                </div>
                <div class="form-group">
<input type="submit" value="Set School Year" class="btn btn-primary pull-right
col-md-4" id="set" name="set" style="margin-right:10px">
                                </div>
                                <br>
                        </div>
```

```
                </form>
                <form method="post" action="">
<div class="well" style="width:50%; margin-right: auto;margin-left: auto;">
<div class="form-group">
<label for="user">Course:</label>
<select class="form-control" value="course" id="course" name="course">
<option value="">Select</option>
<?php
$result1=$conn->query("select distinct tbl_course.Course,tbl_Course.CourseID
from tbl_college,tbl_course,login where login.id='$id' and
tbl_course.CollegeID=login.department");
while($row1=mysqli_fetch_object($result1)){
?>
<option value="<?php echo $row1->CourseID; ?>"><?php echo $row1->Course;
?></option>
<?php } ?>
</select>
</div>
<div class="form-group">
<label for="user">Exam Passing Score:</label>
<input type="text" class="form-control" id="passing" name="passing" required
placeholder="50"></div>
<div class="form-group">
<input type="submit" value="Update passing score" class="btn btn-primary pull-
right col-md-4" id="updatepassing" name="updatepassing" style="margin-
right:10px">
        </div>
                        <br>
                        </div>
```

```
                </form>
                <form method="post" action="">
<div class="well" style="width:50%; margin-right: auto;margin-left: auto;">
                        <div class="form-group">
                            <label for="user">Course:</label>
<select class="form-control" value="course" id="course" name="course">
<option value="">Select</option>
<?php
$result1=$conn->query("select distinct tbl_course.Course,tbl_Course.CourseID
from tbl_college,tbl_course,login where login.id='$id' and
tbl_course.CollegeID=login.department");
while($row1=mysqli_fetch_object($result1)){
<option value="<?php echo $row1->CourseID; ?>"><?php echo $row1->Course;
?></option>
        <?php } ?>
        </select>
        </div>
<div class="form-group">
                <label for="user">Set Number of Items:</label>
                <input type="text" class="form-control" id="items" name="items"
required placeholder="50"></div>
<div class="form-group">
<input type="submit" value="Set Number of Items" class="btn btn-primary pull-
right col-md-4" id="item" name="item" style="margin-right:10px">
                        </div>
                        <br>
                    </div>
                </form>
```

```
<form method="post" action="">
<div class="well" style="width:50%; margin-right:
auto;margin-left: auto;">
<div class="form-group">
<label for="user">Course:</label>
<select class="form-control" value="course"
id="course" name="course">
<option value="">Select</option>
<?php
$result1=$conn->query("select distinct tbl_course.Course,tbl_Course.CourseID
from tbl_college,tbl_course,login where login.id='$id' and
tbl_course.CollegeID=login.department");

while($row1=mysqli_fetch_object($result1)){
?> <option value="<?php echo $row1->CourseID; ?>"><?php echo $row1-
>Course; ?></option>
<?php } ?>
</select>
</div>
<div class="form-group">
<label for="user">Set Timer(in minutes):</label>
<input type="text" class="form-control" id="time" name="time"
required placeholder="30">
</div>
<div class="form-group">
<input type="submit" value="Set Timer" class="btn btn-primary pull-right col-
md-4" id="timer" name="timer" style="margin-right:10px">
</div>
<br>
```

```
                </div>
            </form>
                <?php
                    if(isset($_POST['set'])){
                        $exam=$_POST['exam'];
                        $cID=$_SESSION['cID'];
                        $sql="update tbl_csy set csy='$exam' where
                            collegeID='$cID'";
                        if (mysqli_query($conn, $sql)) {
                            echo "
                                <script>
                            alert('Updated school year');
                                </script>";
                        }
                    }
                    if(isset($_POST['updatepassing'])){
                        $passing=$_POST['passing'];
                        $course=$_POST['course'];
                        $sql="update tbl_passing set
passing='$passing'   where CourseID='$course'";
                        if (mysqli_query($conn, $sql)) {
                            echo "
                            <script>
                            alert('Updated course rating');
                                </script>";
                        }
                    }
```

```
                    if(isset($_POST['time'])){
                        $time=$_POST['time'];
                        $course=$_POST['course'];
                        $sql="update tbl_passing set time='$time'
where                   CourseID='$course'";
                        if (mysqli_query($conn, $sql)) {
                            echo "
                                <script>
                                    alert('Success: Time set
up');
                                </script>";
                        }
                    }

                    if(isset($_POST['item'])){
                    $item=$_POST['items'];
                    $course=$_POST['course'];
                    $sql="update tbl_passing set items='$item'
                                CourseID='$course'";
where
                    if (mysqli_query($conn, $sql)) {
                        echo "
                            <script>
                                alert('Success: Updated
                                    of items');
number
                            </script>";
                    }
                }
            ?>
```

```
</body>
</html>
<td><?php echo $i; ?></td>                    <td><?php echo $row1->Course;
?></td>
<?php                                  if($row1->allow==0){
?>
<td><a href="students.php?id1=<?php echo $row1->eregid;
?>">Change</a></td><?php }
else{
?>
<td>Change</td>
```

QUESTIONNAIRES

SAMAR STATE UNIVERSITY
Arteche Blvd., Catbalogan City, Philippines 6700
College of the Deans | College of Graduate Studies

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"DEVELOPMENT OF DEPARTMENTALIZE ENTRANCE EXAMINATION FOR SAMAR STATE UNIVERSITY"

(Questionnaire for the Administrator)

Name (*optional*): _____ **Age:** _____

Department: _____

Direction: Please encircle the corresponding scale which best describes the level of workability and acceptability of the proposed Development Of Departmentalize Entrance Examination For Samar State University.

SCALE	DESCRIPTION
5	**Strongly Agree**, if the condition is extensive and functioning excellently
4	**Agree,** if the condition is moderately extensive and functioning well
3	**Undecided**, if the condition is lightly extensive and functioning fairly
2	**Disagree**, if the condition is lightly extensive but not functioning fairly
1	**Strongly disagree**, if the condition is not extensive and functioning poorly

	OVERALL SYSTEM PERFORMANCE	RATE				
1	The organization of the system is clear, logical and effective	5	4	3	2	1
2	The system introduces a user to an easy to follow and consistent navigation system.	5	4	3	2	1
3	The language in the program is clear to the intended audience.	5	4	3	2	1
4	Input screens are designed for user convenience.	5	4	3	2	1
5	The system is attractive and interesting; it motivates users to continue using the system.	5	4	3	2	1
6	Simple labels are used to simplify data entry.	5	4	3	2	1
7	There is a real-time update of data.	5	4	3	2	1
8	The system operates at an acceptable speed.	5	4	3	2	1
9	The overall processing response satisfies the user requirements	5	4	3	2	1
10	The system is compatible to most operating systems available.	5	4	3	2	1

Other comments (optional):

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College of the Deans | College of Graduate Studies

"DEVELOPMENT OF DEPARTMENTALIZE ENTRANCE EXAMINATION FOR SAMAR STATE UNIVERSITY"

(Questionnaire for the Students)

Name (*optional*): _____ **Age:** _____

Department: _____

Direction: Please encircle the corresponding scale which best describes the level of workability and acceptability of the proposed Development Of Departmentalize Entrance Examination For Samar State University.

SCALE	DESCRIPTION
5	**Strongly Agree**, if the condition is extensive and functioning excellently
4	**Agree,** if the condition is moderately extensive and functioning well
3	**Undecided**, if the condition is lightly extensive and functioning fairly
2	**Disagree**, if the condition is lightly extensive but not functioning fairly
1	**Strongly disagree**, if the condition is not extensive and functioning poorly

	OVERALL SYSTEM PERFORMANCE	RATE				
1	The organization of the system is clear, logical and effective	5	4	3	2	1
2	The system introduces a user to an easy to follow and consistent navigation system.	5	4	3	2	1
3	The language in the program is clear to the intended audience.	5	4	3	2	1
4	Input screens are designed for user convenience.	5	4	3	2	1
5	The system is attractive and interesting; it motivates users to continue using the system.	5	4	3	2	1
6	Simple labels are used to simplify data entry.	5	4	3	2	1
7	There is a real-time update of data.	5	4	3	2	1
8	The system operates at an acceptable speed.	5	4	3	2	1
9	The overall processing response satisfies the user requirements	5	4	3	2	1
10	The system is compatible to most operating systems available.	5	4	3	2	1

Other comments (optional):

SYSTEM PRESENTATION

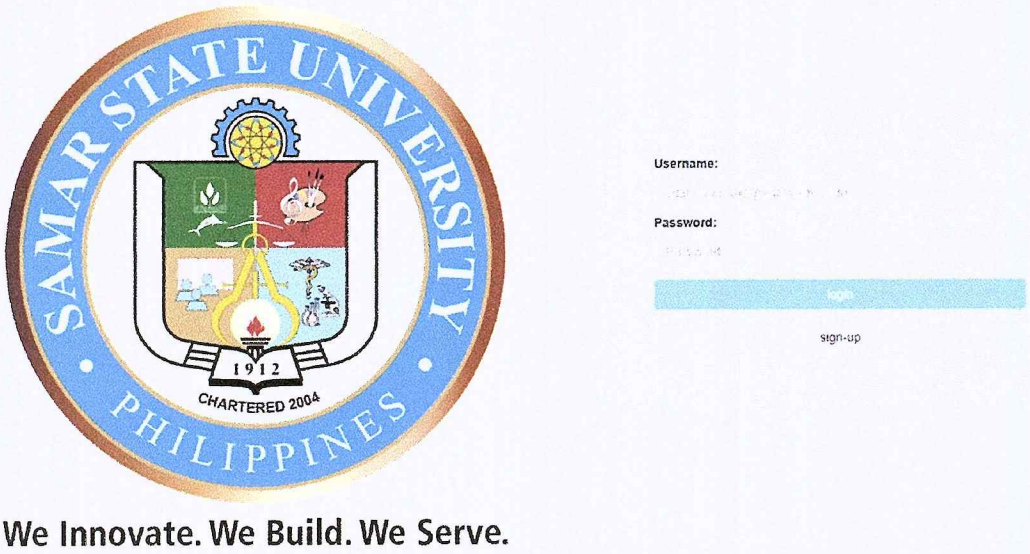


Figure 1. The Admin Login and Students Log in of the System.

Figure 2. Shows the homepage of the system. It presents the courses offered in each colleges.

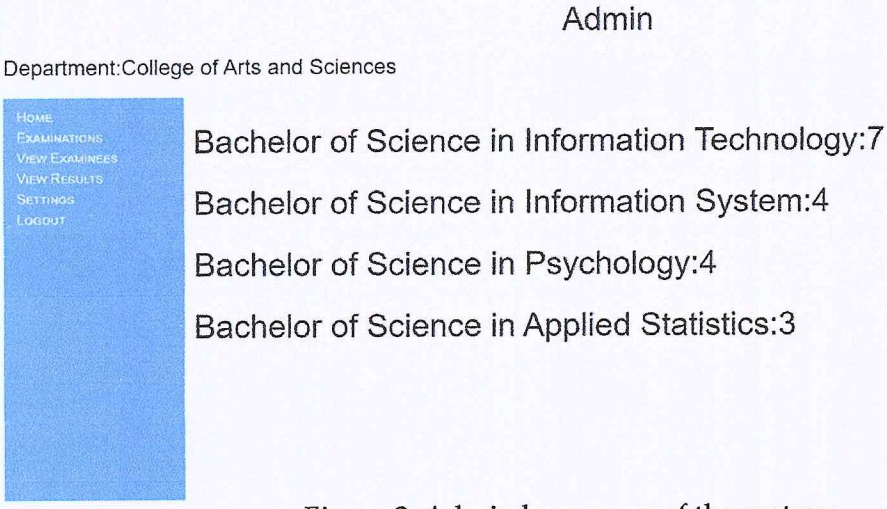


Figure 2. Admin homepage of the system.

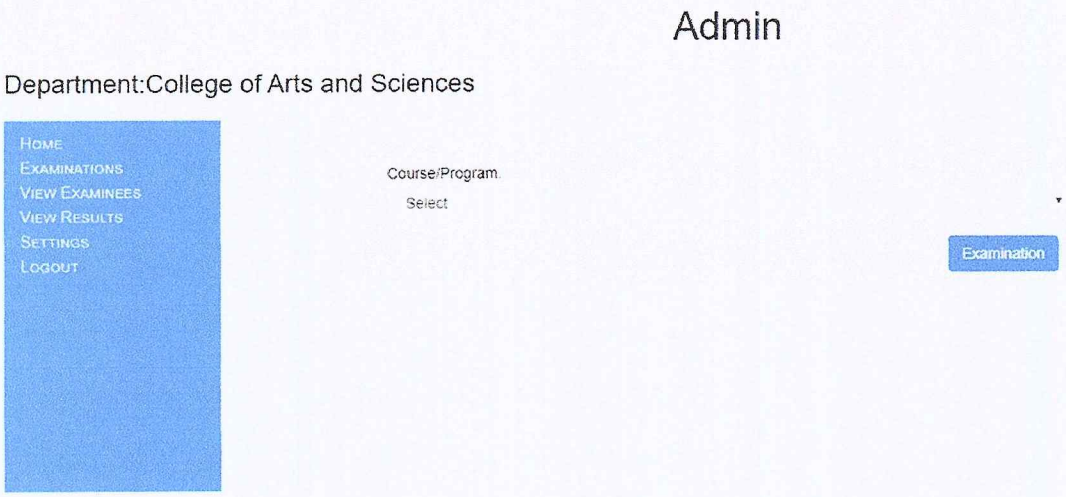


Figure 3. Selection of the Course/Program.

In figure 4. Illustrated the list of students who took the examination. By this process admin can confirm if the examinee will be allowed to take the entrance examination.

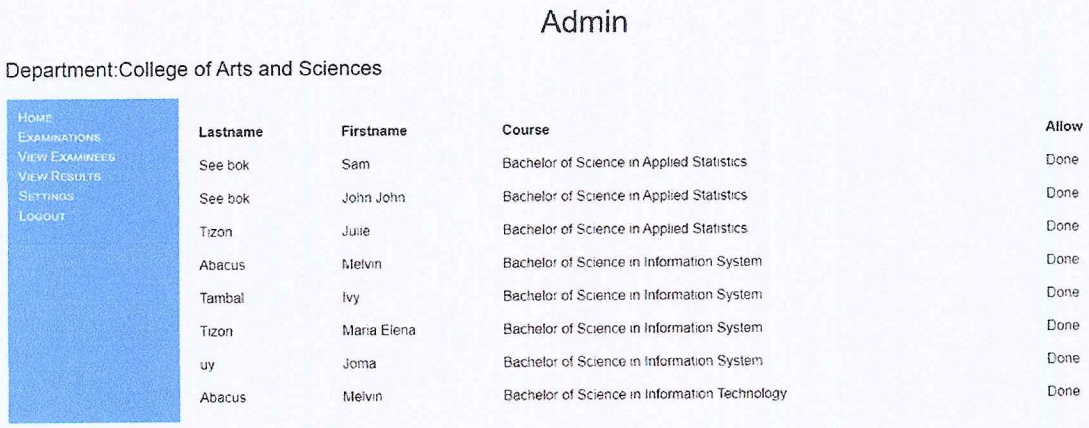


Figure 4. List of students who took the examination.

From figure 5. Admin can view the result by selecting the course, as can be observed there are two button which an admin can click/select, the "View Result (Passed)" and "View Result(All)". View Result (Passed) shows the result of those students who passed the exam while View Result(All), shows all those students who took the examination.

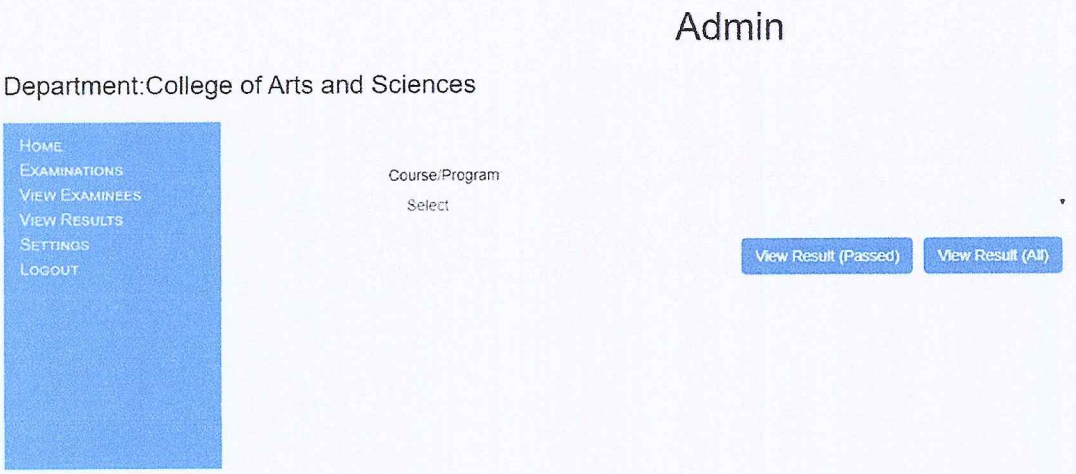
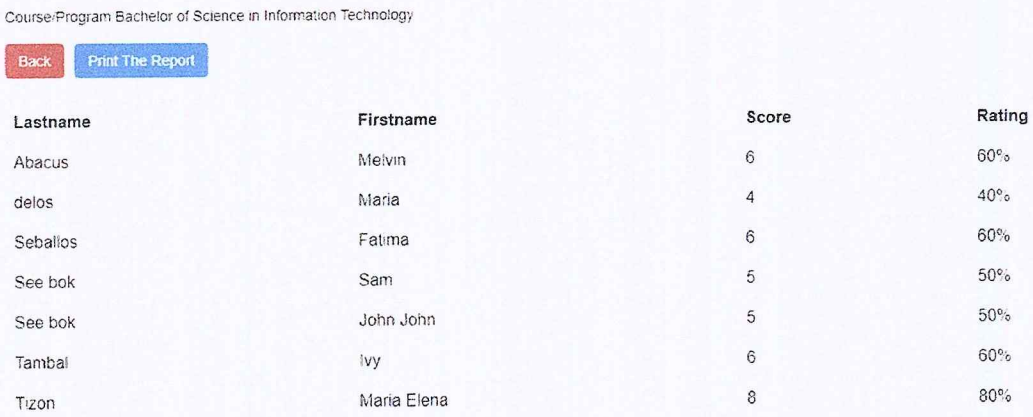


Figure 5. Viewing the list of result of the examination who passed and who didn't.



Lastname	Firstname	Score	Rating
Abacus	Melvin	6	60%
delos	Maria	4	40%
Seballos	Fatima	6	60%
See bok	Sam	5	50%
See bok	John John	5	50%
Tambal	Ivy	6	60%
Tizon	Maria Elena	8	80%

Figure 6. Example of list of students who passed the exam.

Figure 7. Shows the setting of the system. By this page the admin can set the setting example the Exam Passing Rate and Exam Percentage.

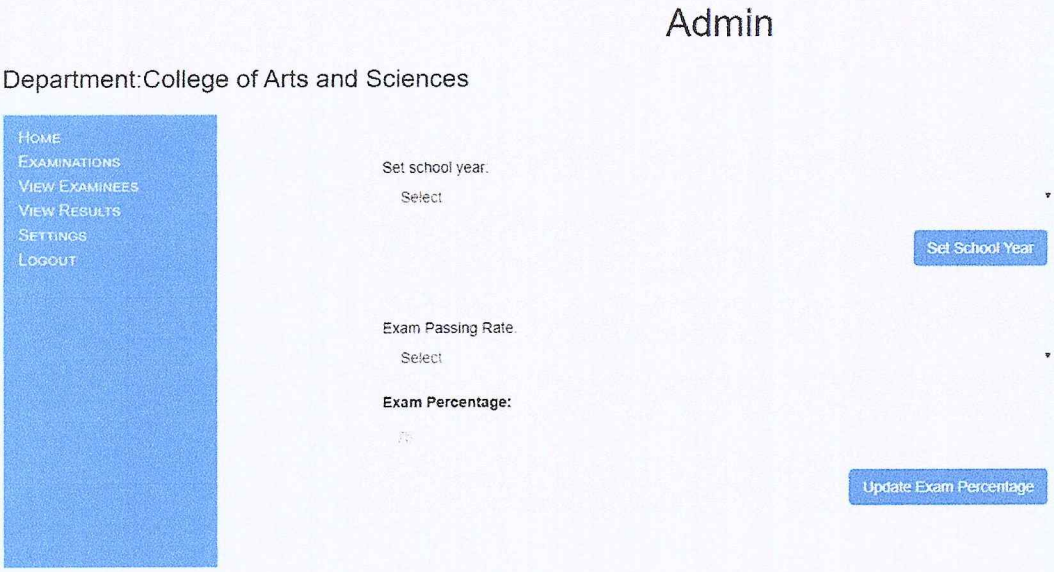


Figure 7. Setting of the system.

Figure 8. The Registration process of the system.

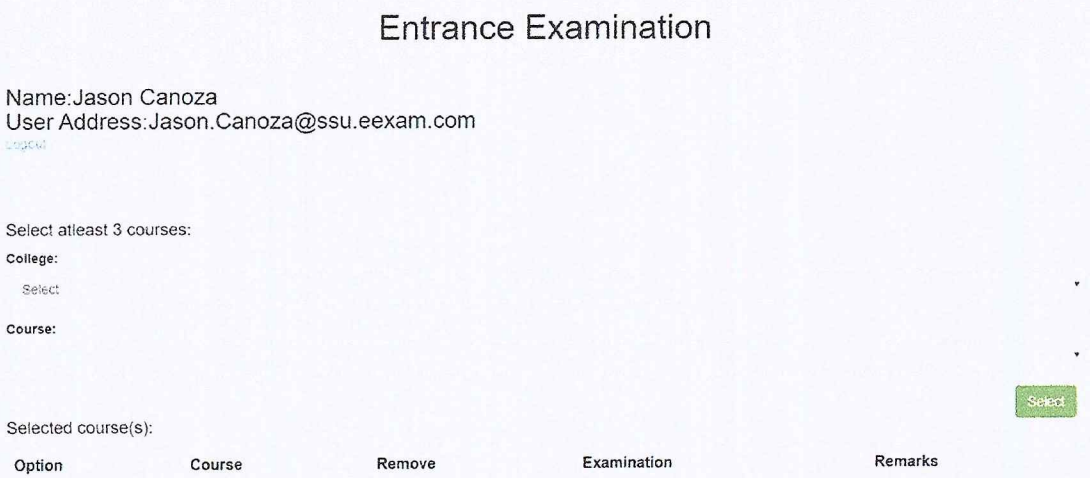


Figure 9. Selection of the three courses.

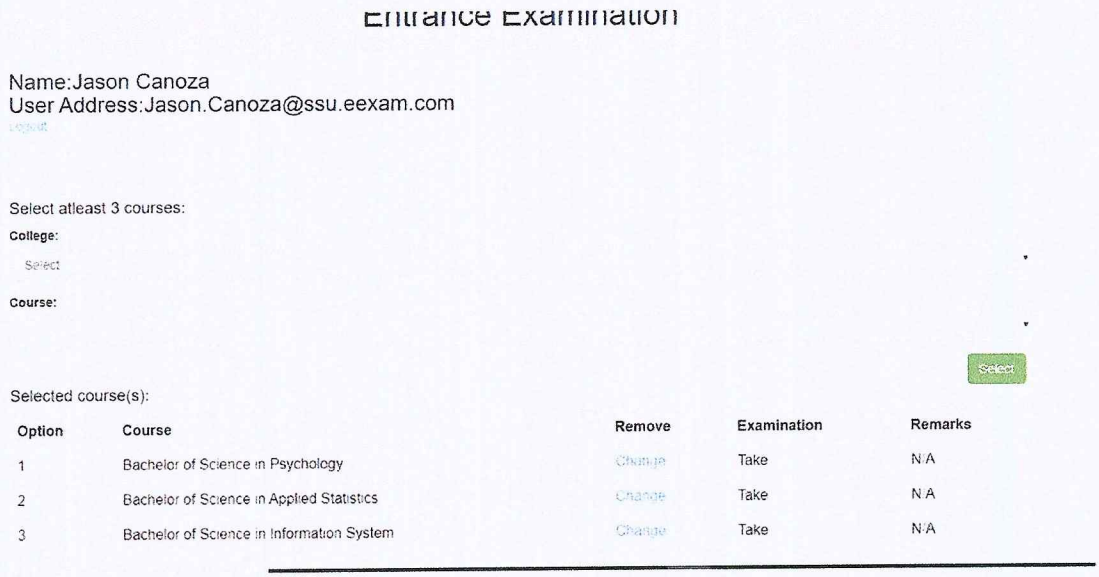


Figure 10. Example of selecting three(3) courses from the examinee.

1. What is the response of individual or group of human to internal and external stimuli?
   - **Human Behavior**
   - **Psychology**
   - **Emotion**
   - **Affection**

2. It is the study of human behavior.
   - **Sociology**
   - **Psychology**
   - **Biology**
   - **Physiology**

3. Behaviors observed by other people are
   - **Humanistic**
   - **Overt or Extrinsic**
   - **Covert or intrinsic**
   - **Sociology**

4. Behaviors known only to the person experiencing it is:
   - **Sociology**
   - **Covert or intrinsic**
   - **Overt or Extrinsic**
   - **Humanistic**

5. It is taken from the Latin term Persona meaning "masks" which were first used in Greek drama.
   - **Personality**
   - **Behavior**
   - **Temperament**
   - **Character**

6. He based his theory on the three layers of tissue in the human embryo. He is:
   - **Gordon Allport**
   - **William Sheldo**
   - **Carl Jung**
   - **Ernest Kretschmer**

7. This is the transmission of traits from parents to offsprings.
   - **Chromosomes**
   - **Biological heredity**
   - **Environment**
   - **Trait**

8. Tends towards a roundness, heaviness and a preponderance of visceral development.
   - **Ectomorphy**
   - **Actinomorphy**
   - **Mesomorphy**
   - **Endomorphy**

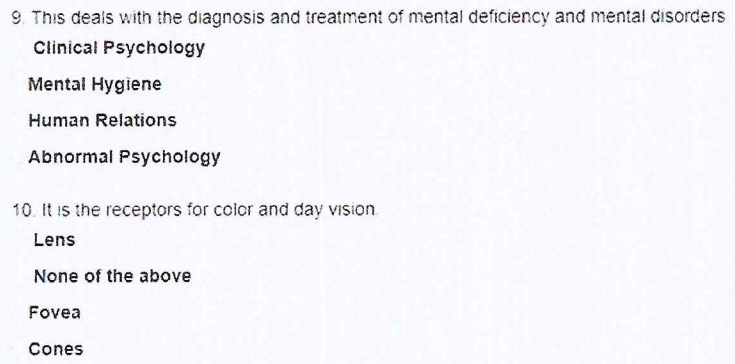


Figure 11. Example of the Test Question.

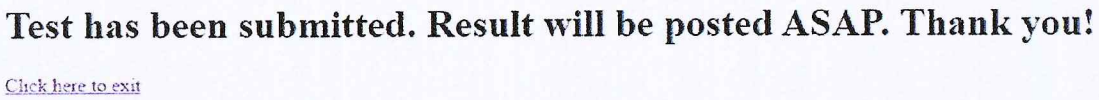


Figure 12. After the examinee take the examination.

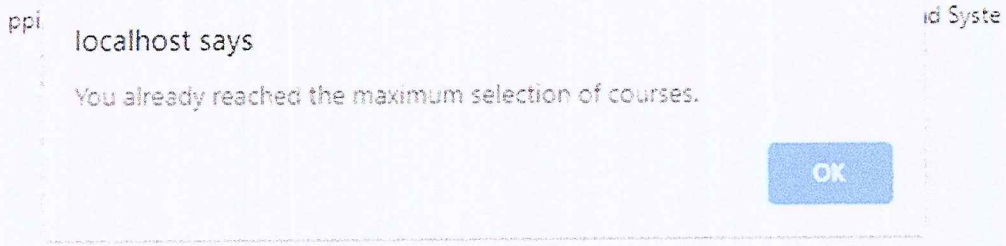
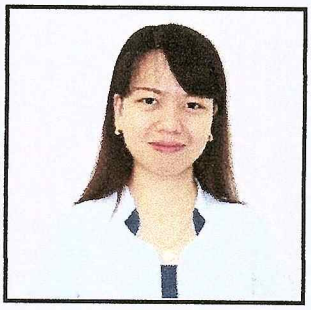


Figure 13. The error message if the examinee reach the maximum selection.

CURRICULUM VITAE



NAME: MARIA ELENA B. TIZON

ADDRESS: PUROK 6, BRGY. GUINDAPUNAN, CATBALOGAN CITY

BIRTHDATE: MAY 1, 1987

CITIZENSHIP: FILIPINO

RELIGION: ROMAN CATHOLIC

CIVIL STATUS: SINGLE

CONTACT NUMBER: +639487202388

E-MAIL ADDRESS: mariaelena.tizon@ssu.edu.ph

FATHER: RODOLFO Q. TIZON

MOTHER: LORETA B. TIZON

EDUCATION

ELEMENTARY: Catbalogan II Central Elementary School
Catbalogan City, Samar
1994 - 2000

SECONDARY: Samar State Polytechnic College
Catbalogan City, Samar
2000 - 2004

COLLEGE: Bachelor of Science in Computer Engineering
Samar State University – Catbalogan City, Samar
2004 - 2009

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