ONLINE EXAMINATION SYSTEM

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ABSTRACT

Online assessments are a significant technique for assessing the achievement capability of understudies. This examination exertion the people viable were understudies who might be joining up with PC courses or Technologies Registrations. A model of an online arrangement assessment framework is depicted from the point of view of the examination exertion, end client, and programming advancement. Online assessment framework is an electronic assessment framework where assessment is taken online for example through the web or intranet utilizing PC framework. It is a successful answer for mass training assessment. An on-line instructive framework including test handling and electronic diary highlights. A teacher fabricates a course put together inquiries which with respect to line contain in ID of assignments. Clients took a crack at the stage may get to the electronic subtleties they furnished and perform different capacities with the on-line instructive framework so as to take an interest in the on-line assessments. Clients can get an on-line test, having mixed media content, for the course, and they can electronically give answers to the test. What's more, after Completion of their length of test they are given the evaluation or imprints made sure about in their assessments. The framework does the assessment and auto-reviewing for numerous decision addresses which is feed into the framework.

1. INTRODUCTION

Online assessments substance suppliers to concentrate on making powerful evaluation questions and concentrating on test's criticism conveyance to understudies. In the paper we present procedures that are appropriate to the components of appraisal process: answers accommodation, electronic reviewing, and criticism after accommodation. As the advanced associations are robotized and PCs are filling in according to the guidelines, it gets fundamental for the coordination of individuals, item and PCs in a cutting-edge association. The managers, teacher, Students who are going to for online assessment can speak with the framework through these undertakings, subsequently encouraging viable execution and checking of different exercises of Online Examinations like leading Exams according to booked premise and conveying result to that specific use or understudy. What's more, the subtleties of understudies who endeavoured Online Examination are kept up at overseer.

1.2 Objectives

The target of the Online Examination Tool is to give better data to the clients of this framework for better outcomes for their upkeep in understudy assessment plan subtleties and evaluating subtleties.

1.3 Problem Statement

The problem with the current system is that students take their exam manually. This outdated system will take long time utilization; the manual procedure used for conducting exams is time consuming process. More time being used for lecturers to bring the questions papers and answer sheets and more time is needed for students to write their exam, students are not satisfied with the current system of taking the multiple-choice examination. There is no accuracy with the current system when students do not use a 2b pencil student are losing their mark. Using the manual procedure of conducting examination, we are not saving the environment by using more paper, we are in the world where really need to take care of the environment.

1.4 Project relevancy, feasibility

1.4.1 Technical Feasibility

Building this system is technically feasible. The hardware and software needed are all available, it is not difficult to get them. Brief I can say the necessary resources needed for the development and maintenance of the system are available. I am going to use python programming languages and SQLite database.

1.4.2 Operationally Feasibility
The project I am developing is operationally feasible as there is no need for users to have good knowledge in computer before using it. The user can learn and use the system with easiness; he just needs to read the manual or tutorial from the developers.

1.4.3 Economic Feasibility
Besides being technically feasible, developing this system is economically feasible as well. The development of the system does not require the developers to spend a lot of money. The tools I will be using to develop the system are not expensive and the software is open source. All I need is time. Even the maintenance of the system will not be expensive. The system is indeed economically feasible.

2.LITERATURE SURVEY
2.1 Background of the study
Computerized and online systems have been increasing in every aspect of education. Information Technology plays a very important role in education nowadays. Computers and internet have made dramatic changes in the education system. Information technology enables institutions of high learning to save time and money, and allow the delivery of education with easiness, anywhere, and anytime. Paper based books are replaced by online and off-line applications. With computer software, we can be able to have access to huge databases of information. This gives fundamental change to education. Information technology makes the exchange of information fast and easy. In the modern era, technological progress has minimized the information in the world. Advancement of technology has many advantages in education and all business industries that use it. With the use of technology advances, transactions became more rapid, accurate and efficient. As time goes by computers have become more useful for every transaction. Online Examination System for introduction to management is an application that is designed and developed for students and lecturers. The system helps students to take examinations. It also helps lecturers to upload the questions and answers in the database and they can see the students who fail or pass the exam.

2.2 Examples of Exam Systems
Infosolutions Goa, they provide an online Examination System to universities. It is a web-based system developed in PHP and MySQL. The examination consists of different types of multiple-choice questions. The questions are selected at random keeping the proper weightage for the various topics. The answers are evaluated and the marks obtained for each along with the answer given by the student are stored in the database. The examiner can get the results immediately in various forms - the general mark list, the detailed general mark list where the marks obtained by the student in each topic of the subject is shown as well as the answer sheet of each student. The trends graph shows the graph of how many students have passed in each topic of a particular subject as well as how many students have passed in each subject. There is also the provision for a Trends graph of comparing how many students have passed topic wise in each subject at the midterm as well as final exams if there are two exams for the subject. The software maintains the details for each student as well as provides a facility for editing the student details if required. There is Password based access for Individual Answer Sheet, General Mark Lists and Trends Graphs. Authentication is provided Via Sessions and the password is stored in encrypted form (MD5 hash) in the database. This Online Examination System in PHP and MySQL can be modified and customized to suit the needs of any Educational Institutions, Primary and Secondary Schools, Colleges, Professional and Vocational Institutes, Universities or Training Academies. This software is particularly suited to conduct competitive exams like recruitment exams and Common Entrance Tests (CET) of various states as it will save valuable time spent on assessing the answer books and the results can be obtained immediately.

iSummation
Technologies This company builds custom online exam creation and administration applications. It's fully automated web-based examination software. The features of the software are customizable, students can do online registration. In the software they are Automated test creation randomized questions, Centralized administrator controls , In built Question database for exam questions, Access anywhere, anytime Application, Exam Format intuitive and easy to navigate ,Administrators load the questions into the database, Examinations are generated automatically as per student selections, Exams

and questions can be edited, deleted, and re-used anytime, A discussion board feature so that the students can discuss problems that challenge them, Add answers hints.

3.METHODOLOGY
3.1 Research Methodology
Main methodology activities held during the research is acquiring information and knowledge about online examination system through reading books, and researches that were previously done in related area. All the research materials were obtained over the internet, Wikipedia and other websites. Next step taken is reading, comprehending and analysing literature review and matching information obtained. This research emphasizes online examination system, which include usability, user-friendly interface, reliability, costing and meeting needs of target users.

3.2 Project Activities
In order to give solution to problems in an industry, software developer or a team of developers must incorporate a development strategy that encompasses the process, methods and tools layers and generic phases. This strategy is often referred to as process model or a software developing paradigm. A process model for software developing is chosen based on the nature of project and application, the methods and tools to be used, and the controls and deliverables that are required. All software development can be characterized as a problem-solving loop in which distinct stages are encountered. Regardless of the process model that is chosen for a software project, all of the stages coexist simultaneously at some level of detail.

The methodology chosen to develop this system is waterfall model approach. I opted for this method because I found that it is the best for my project where the stages involved can assist my level of progress. Many developers prefer waterfall model and widely use it as a development strategy.

Waterfall model approach is chosen because the approach allows the development of the system to be revised after the stages is finished. Once the stages are not satisfied, then going back to the previous stages can be considered necessary to add or modify any features.

The different stages for this model:

➢   Project Planning

➢   Requirements Design

➢   Design

➢   Development

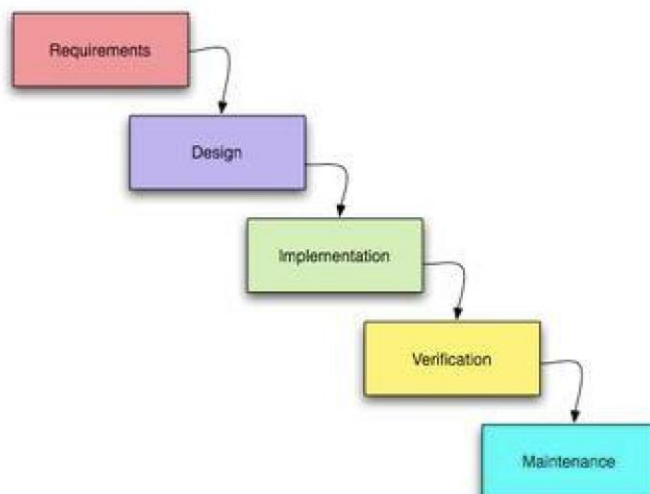➢   Integration and Testing

➢   Installation and Acceptance

Figure 3.2.1: Waterfall Model

3.2.1 Planning

The purpose of this phase is to determine the best solution and steps taken to develop the system. Planning involves the details planning for the timing of the working progress and types of technique will be taken next. Planning also involves that the methodology that will going to use for this project.

3.2.2 Requirement Analysis

The purpose of this phase is to build logical model of this system. In addition, this phase also needed to understand the applications, fact finding technique like document reviews, surveys, observations, and sampling must be made to identify application requirement, software requirement and hardware requirement. In this phase, what kind of data requirement and the functional requirement will been decided.

3.2.3 Design

This phase will produce draft of the system architecture and the prototype of the application that will satisfy all requirement analysis. At this phase the user interface and all necessary input and process will be identify. This phase also determines the application architecture, which is going to shows how to transform the logical design into basic system coding to generate the first prototype of the system. The result for this phase application interface and system design specification. For this project, the design will be created using the Java Net beans.

3.2.4 Implementation

During this implementation phase, the system will be constructed. All codes are generated inside this phase. At the end of this phase, system should running and most of the function for the system should be able to use. Based from the previous phase, from the prototype, the system will become the first version inside this phase

3.2.5 Testing

This phase will evaluate or verify the system that was developed. This phase will have a simulation data which will simulate the true database for the system. This is to test the functionality of the system in comparing a capture data with a database. Besides, all the functionality that may cause errors or problems to the system must be specified inside this phase because, the final result of the system is a very high priority and important. However, the testing phase will only cover to overcome the problem statement and the system objectives.

3.2.6 Maintenance

Various problems can arise in a client environment. Patches are published to address certain problems. Additionally, improved versions of the product are issued. To bring about these changes in the surroundings of the consumer, maintenance is performed.

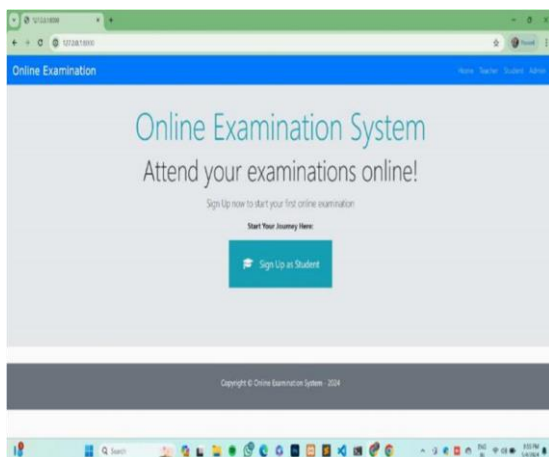## 4.RESULT
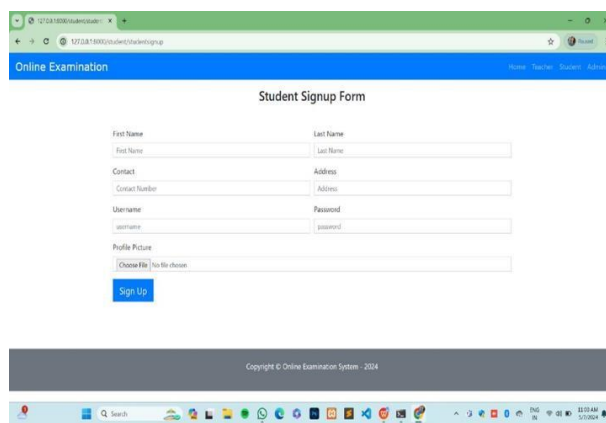## The results/outputs have screenshots below:

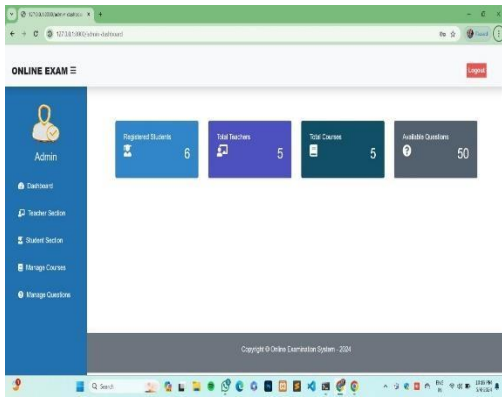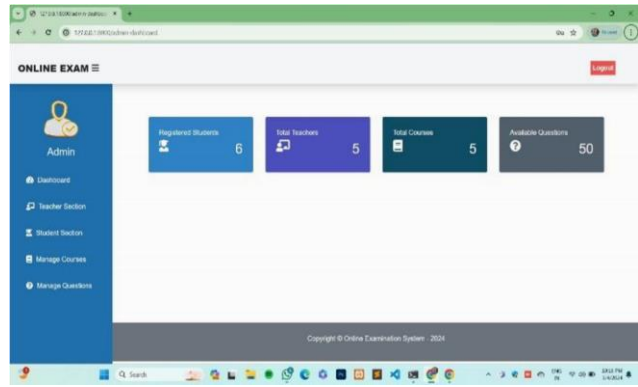Fig 2: User Registration

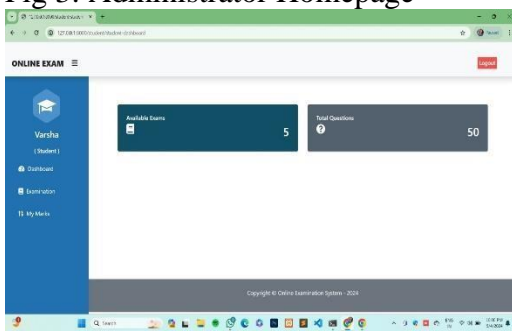Fig 1: Home Page

Fig 3: Administrator Homepage
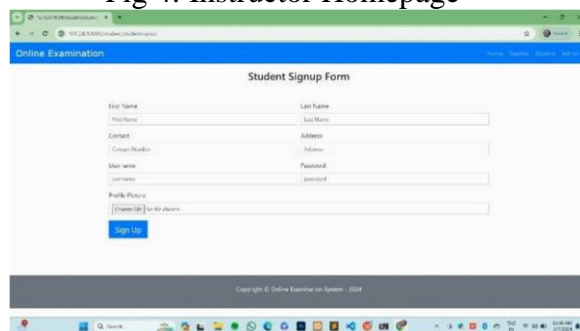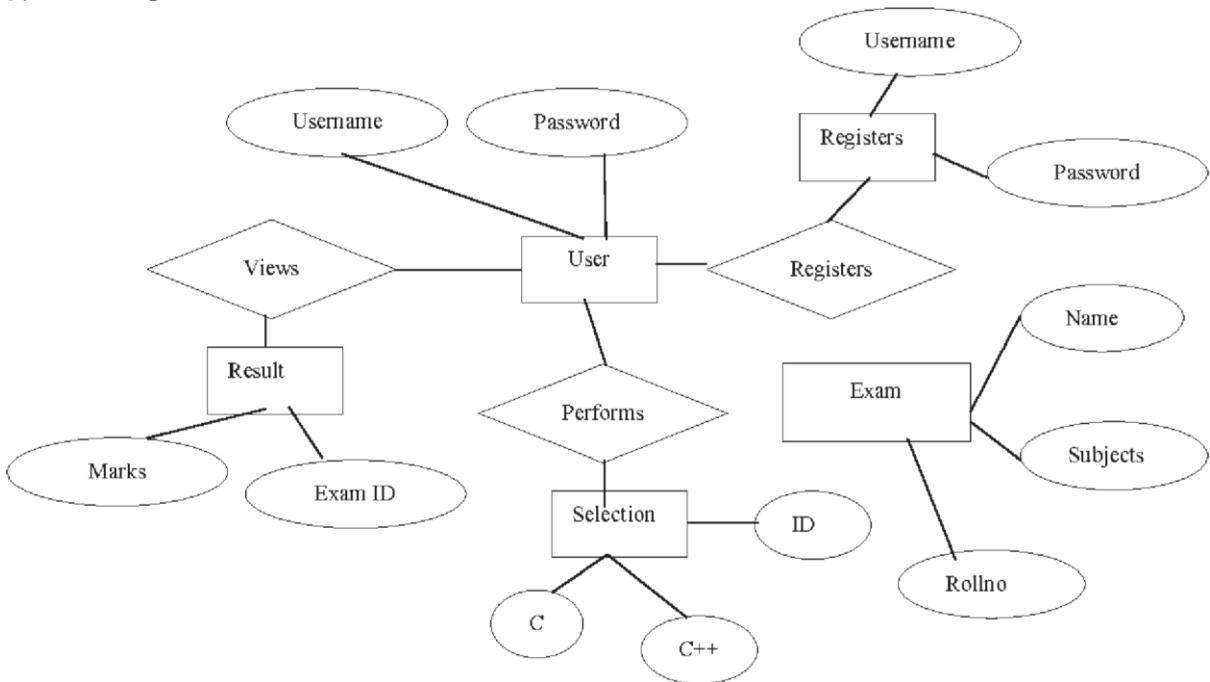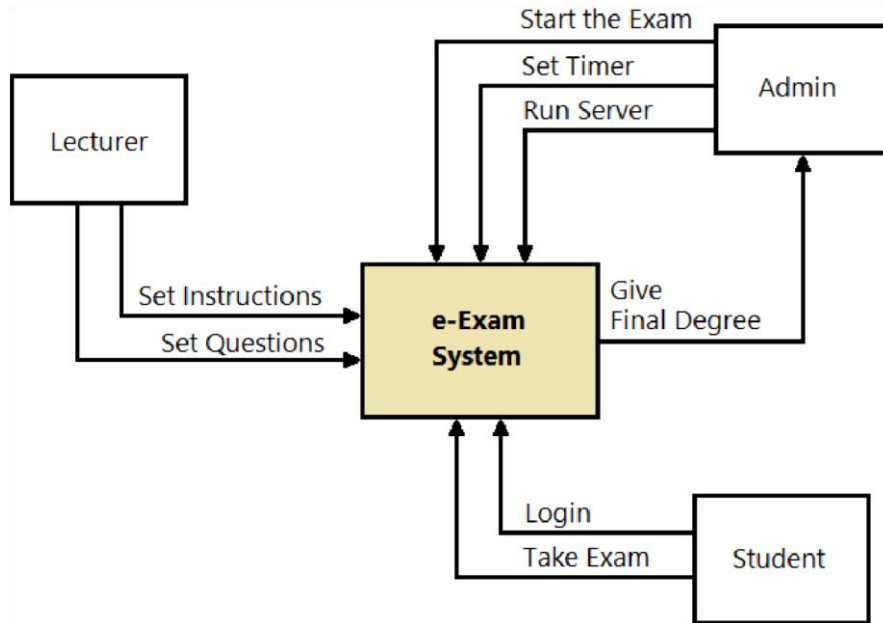

Fig 4: Instructor Homepage

Fig 5: Student Homepage

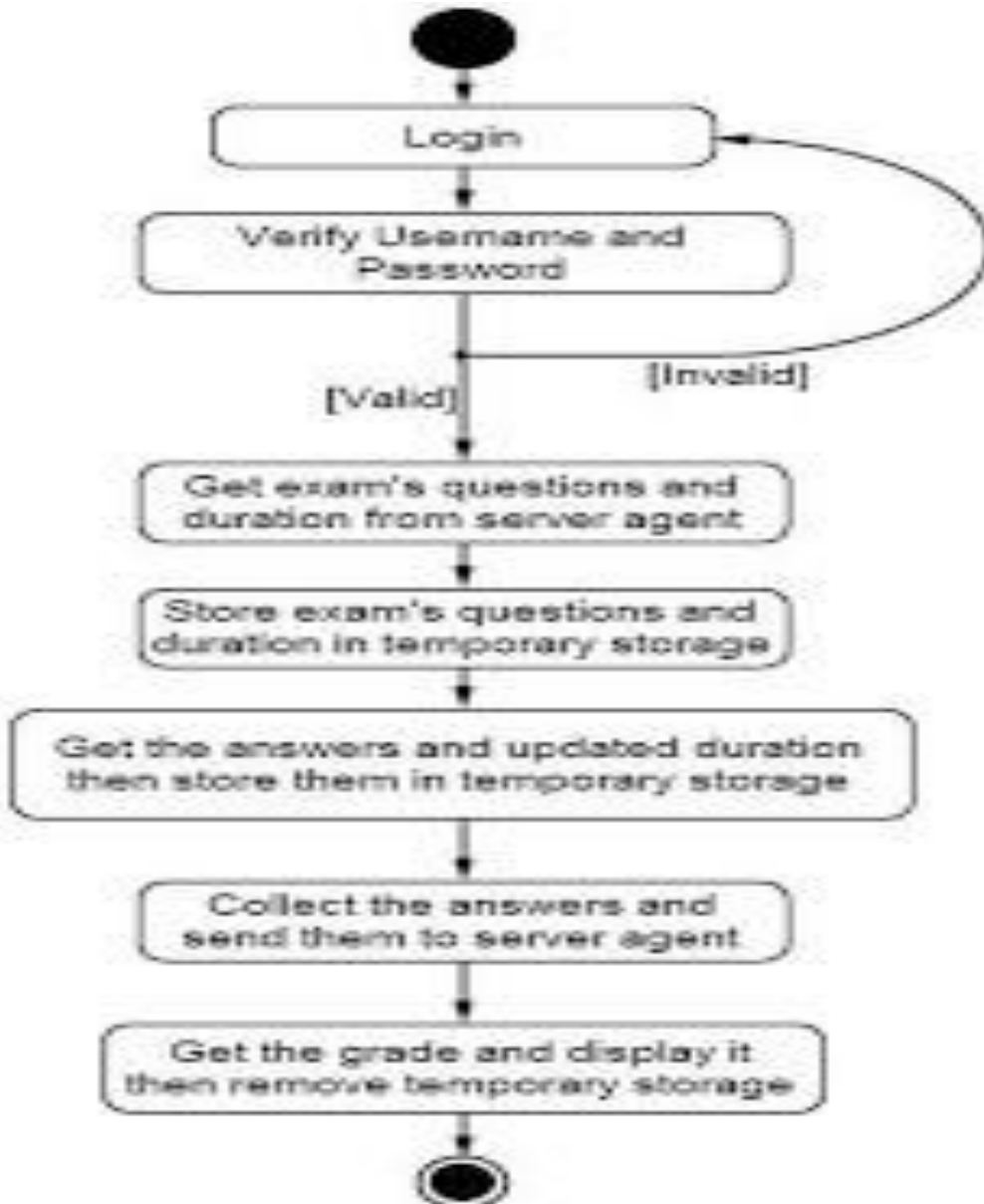Fig 6: Student Registration

5.ER DIAGRAM

5.1 DATABASE DFD DAIGRAM

5.2 STATE CHART DIAGRAM

6. CONCLUSION

Using an open-source language gives us more flexibility, but at the same time it required more time to be programmed. The proposed Online Examination System (OES) can be easily adopted by universities and institutions in order to make the exam more secure and more flexible. The system is subdivided into two main subsystems (student and administrator) that are designed to give the system maximum benefit by demonstrating carefully each subsystem service. The administrator's functions are clearly identified to be able to manipulate user's information such as add (register), delete users and managing the exam materials and content such as add, delete questions.

7. FUTURE SCOPE

Scope of this project is very wide in terms of other manually exam paper. This can be used not only in educational institution but also private institute .It can be used anyplace any time as it web base application .No limitation that examiner has to be available when the student takes the test. Online examination is need to designing for educational institutes like and private institutes to direct test of their students. There have been number of cases of computer glitches, bugs in content. And security threats reported in web based online examination system. So, in the near future the so-called software can be make more secure and trustworthy. While electronic glitches are uncommon. They have been known to occur. For instance, when computer crashes voided the efforts of so many students. There are also cases in which correction software has corrupted score.

8.REFERENCES

The following links were referred during the analysis and execution phase of the project.

[1]   Xu Qiaoxia, Liu Dongsheng. Research and Design of the Security of Network Examination System[J]. Computer Education, vol 5, pp. 40-42, 2010.

[2]   Song Luo, Jianbin Hu and Zhong Chen. "Task based automatic examination system for sequenced test". 2009 International Conference on Electronic Computer Technology, 2009.

[3]   Zhang, W. Fang, J. Song, "The Design and Realization of the Intelligentize Online Testing System Based on Templates", Knowledge Acquisition and Modeling, 2009. KAM '09.

[4]   Intelligentize Online Testing System Based on Templates", Knowledge Acquisition and Modeling, 2009. KAM'09. Second International Symposium on, vol.3, no., pp.248-251.