ONLINE EXAMINATION PORTAL

PROJECT SYNOPSIS

OF MAJOR PROJECT

BACHELOR OF TECHNOLOGY

COMPUTER SCIENCE & ENGINEERING

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Introduction

Online exam portal helps the both Student and teachers to conduct the exam in a fast and efficient manner. The main objective of this project is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves lot of time but also gives fast results.

It helps students of Institutes to offer a quick and easy way to appear for the exam. It also provides the results immediately after the exam.

The Online Examination System project provides a web application which will considerably reduce the time required to give the exam and know the results. This project will provide an efficient platform both for the students and the teachers, by enabling examinations to be taken online.

An Online Examination System is a special type of web-based application where examinations of the students can be taken in a correct and efficient manner.

The main purpose of designing the Online Examination System is to reduce the time of taking examinations of the students manually. There are some advantages factors of this system which are given below:

- The Online Examination System reduces time of taking manual examination of students.
- This system will work efficiently and correctly as far as computer technology is concerned.
- This system will provide better security and transparency in the examination.
- This can be used in educational institutions as well as in corporate world.
- Can be used anywhere any time as it is a webbased application (user Location doesn't matter).
- No restriction that examiner has to be present when the candidate takes the test.

The online test created for taking online test has following stages:

- Login
- Test
- Result

- Login:- There is a quality login window because this is more secure than other login forms as in a normal login window there are multiple logins available so that more than one person

can access to test with there individual login. Hence it is more secure and reliable than previously used on-line test simulators.

- TEST: Test page is the most creative and important page in this project.

Literature Survey

Study from Nan Yang et. al. Based on the research of domestic and foreign research situation, the paper analyses the importance of examination system in university and puts forward the development of examination that is based on .net technology. The system can set different authorities for different user groups by various university environments.[1]

Study from Huang Darong et al. The online exam system which integrates with Struts2, Spring and Hibernate has been researched here. Based on completion of essential function of online exam system, the thought of S2SH (Struts2+Spring+Hibernate) framework has been adopted in our system which separates view tier, control tier, business logic tier and data accessing tier into different components, as well as utilizes MVC pattern (Model View Controller) of web system development to accomplish loose coupling between tiers.[2]

Study from Tassanan Treenantharath et al. This paper proposed the secure online exams on thin client. The client in this system can be used older computer to reduced total cost of ownership. The proposed system used the Ubuntu operating system; the LTSP and the LXDE desktop manager to provide the thin client infrastructure in a dedicated exam room. The quiz activity was managed by Moodle that is a popular course management system.[3]

Study from Bing Xu et al. the MVC framework was first introduced and the common paper constructing algorithm was analyzed in detail. Then, the paper proposed the online exam system design idea and main functional module based on the MVC framework, as well as analyzed and designed the system.[4]

Study from Hadian S.G.Asep et al. proposed a method to enhance the robustness for pose and lighting variations by doing an incremental training process using the training data set obtained from m-learning online lecture sessions.[5]

Study from Ria Mae H. Borromeo et al.The University of the Philippines Open University (UPOU) uses Moodle as its main learning management system (LMS) platform. In Moodle, there is a Quiz module, which enables administration of online examinations within the online classrooms.[6]

Study from L. Gengming et al.This paper describes a research of online exam system based on the SSH (Struts+ Spring+ Hibernate) architecture. With the goal of meeting the market's needs of small-group tasks and high reliable, suitable and extendable applications, we try in the research to present a procedure of developing network system and give a layout of a developing team. [7]

Study from I. F. Al-Mashaqbeh et al. The study will show the advantages and disadvantages of the using an online exam on the university campus. To do so a questionnaire was delivered to students taking the course and then it was analyzed using the SPSS. [8]

Study from A. A. Sukmandhani et al. In the development of this technology, biometric systems are highly developed for use in various applications. Biometric systems are usually used to identify and analyze the characteristics of the human body such as fingerprints, retina, sound patterns, facial patterns and other body structures that can be used for system authentication.[9]

Study from M. Ghizlane, B. Hicham et al. in this article an online exam management system that provides automatic and continuous monitoring. The implemented solution uses face recognition for a strong student authentication.[10]

Study from H. Y. AbuMansour The construction of online exams depends entirely on a pool of questions known as “Question bank” used to form online exams via an adopted learning management systems(LMS).[11]

Study from J. Đurić et al. Cheatless is using video and audio surveillance and restricting user's computer from using other programs. Restrictions can minimize above stated concerns, and online exams can be conducted almost as it is in classrooms.[12]

Study from H. A. Bazar The current paper proposed a smart forms distribution algorithm for online examination systems. This algorithm can improve the reliability of online examination systems in terms of prohibiting repetition of questions' forms between the adjacent terminals and based on this, it provides a guarantee that adjacent students in a lab will not receive the same exam form during an online examination session.[13]

Study from G. Frankl et al. This paper describes the “Secure Exam Environment” (SEE) implemented at the AAUK to support exams based on Moodle to be held on student laptops without access to local files or the Internet. Additional programs like Excel or Java applications can be installed and used during the exams.[14]

Objective

The existing offline examination system takes a lot of effort , resources and time to conduct the examination.

It takes a lot of time to evaluate the answer sheets of students.

Students need to reach their respective examination center for give the test.

Students need to wait for a long interval of time for their results to be declared.

Offline examination system needs lot of resources like paper which is a wastage of natural resource.

Our project will reduce the complexity of examination management system in the following ways:

- Reduce Entry work
- Easy Retrieval of information
- Reduced errors due to human intervention
- Portable and flexible for further enhancement
- Web enabled

Methodology

The software methodology followed in this project includes the object-oriented methodology and the application system development methodologies. The description of these methodologies is given below. Application System Development – A Life cycle Approach

The application systems are large highly structured. User task comprehension and developer task proficiency is usually high. These factors suggest a linear or iterative assurance strategy. The most common method for this stage class of problems is a system development life cycle modal in which each stage of development is well defined and has straightforward requirements for deliverables, feedback and sign off. The system development life cycle is described in detail since it continues to be an appropriate methodology for a significant part of new development work. The basic idea of the system development life cycle is that there is a well-defined process by which an application is conceived and developed and implemented. The life cycle gives structure to a creative process. In order to manage and control the development effort, it is necessary to know what should have been done, what has been done, and what has yet to be accomplished. The phrases in the system development life cycle provide a basis for management and control because they define segments of the flow of work, which can be identified for managerial purposes and specifies the documents or other deliverables to be produced in each phase. The phases in the life cycle for information system development are described differently by different writers, but the differences are primarily in the amount of necessity and manner of categorization. There is a general agreement on the flow of development steps and the necessity for control procedures at each stage. The Online examination system includes below three

modules:

1. Admin Module

2. Register Module

3. Sign In Module

Facilities required for proposed work

Hardware requirements:

- **Processor:** Intel dual core or above
- **Processor Speed:**1.0GHZ or above
- **RAM:** 1 GB RAM or above
- **Hard Disk:** 20 GB hard disk or above
- **Operating system:** Windows XP or above

Software requirements:

- XAMPP server.

Technology Used:

- Front end: HTML CSS , java Script, Bootstrap.
- Back end: MySQL, PHP

MySQL: MySQL is a database management system. It is the most popular database system.

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