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An enhancement and implementation of today's online examination system

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Abstract -Online Examination System is a software solution, which allows a particular company or institute to arrange, conduct and manage examinations via an online environment. It is a web based application for technical evaluation and its goal is to evaluate the questions thoroughly with the help of an automated system which helps in giving accurate results. The existing system disadvantage is that it very time consuming. The proposed system advantage is that it takes less time. To protect the system from unauthorized access to data password protection facility is also incorporated. The administrator prepares the questions for the exams and immediately after the completion of exam the answers will be published.

KEYWORDS: online examination, HTML, java script, SQL, portable, secured, negative marking.

1.INTRODUCTION

Online examination system has been widely applied in the exams. It is a technology to simplify examination activities like defining exam timer, objective/subjective question sections, conducting exams using computer in paperless manner and also cost effective. In this, the candidate is allowed to type an answer for any theory question in the subjective exams.

The evaluation of theory answers is done by administration panel and according to the answer type the marks are awarded to the student. We can also define our own customized assessment. Candidates can appear for the exam using any desktop with the help of a browser. Exam results can be generated instantly for objective type of questions. Examination questions are randomized from the available pool of the question bank based on the pre-defined criteria. It can simplify overall examination management and result generation activity which helps in time management.



Fig: 1. Online Examination System.

2. SOFTWARE REQUIREMENTS SPECIFICATION

A software requirements specification (SRS) is an information which is to be developed. It is also known as a stakeholder requirements specification which is modeled after business requirements specification.

The software requirements specification contains functional and non-functional requirements, and includes a set of use cases that describes user interaction that the software must provide to the user for perfect interaction.

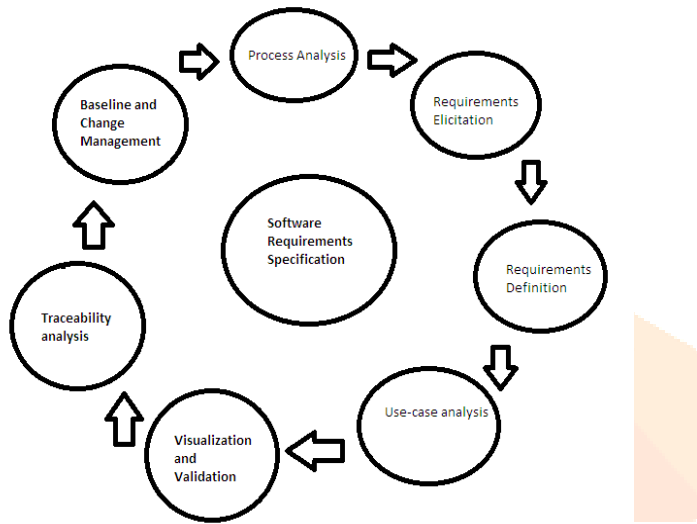


Fig. 2. Software Requirements Specification

3. EXISTING SYSTEM: Existing system is an automated system. The major benefit of the system is data accuracy and errors minimization. To protect the system from unauthorized access to data, password facility is incorporated.

The existing system has got many disadvantages. It is a personalized system which is made in a quick and easy referential manner. The disadvantages of existing system, that it is not highly secured as any user can access the system. The questions for the exams will prepare by the administrator and the answers will be published immediately after completing the exam.

Some features of different online examination systems:

- Master soft(U.S.):
 - Biometric and online attendance
 - Library management
 - HR management
 - Mobile application
 - Credit system based on choice

- Yashwantrao Chavan Maharashtra Open University (YCMOU, Maharashtra):
 - Exam types (aptitude, personality, mock, academic, entrance, subjective exams)
 - Question banks
 - Remote proctoring (monitoring and invigilation)
 - Exam management
 - Exam analytics
 - Onscreen evaluation
- Kaldin:
 - Instant generation to test results
 - Tests and data are highly protected and safe
 - Data can be backup every 30 minutes
 - Easy navigation to specific questions
- Virtual X:
 - Role based access and user security
 - Supports formulae and equations
 - Generates graphically analyzed reports and results
 - Supports 14 different types of questions
 - Enables manual evaluation for descriptive questions
- Skillsbook:
 - Delivers online training
 - Design intuitive and easy to use course and assessments
 - To identify and develop professional skills
 - Customize training plans and manages training calendars
 - Stores qualifications and certificates
- Papershala:
 - An easy and simple user interface
 - Schedule exam paper as per one's convenience
 - Pause and resume the exam
 - Reusable questions
 - One-click activation and deactivation
 - Instant result generation
- Ed-base:
 - Works online and offline
 - Analytics
 - Lockdown screen
 - Timer
- Mercer Mett:

- Measure candidates on personality, skills and ability
- Builds a structured, standardized and optimized hiring process
- Allows you to create comprehensive employee behavioral profiling by distributing questionnaires to managers, supervisors, subordinates, (or) co-workers.
- Speed exam:
 - Best for critical examinations like aviation, nursing, medical (or) many more
 - Let you to send personalized texts with exam sign in details, instruction, test results, certificates, reports, and other information
 - Supports a variety of devices, including smart phones and tablets

Gives your live coverage of the examination.

- TC Exam:
 - Platform independent
 - Does not require expensive hardware requirements
 - Internationalization
 - High accessibility
- TAO:
 - Multi-language supporter
 - Compatible with every operating system
 - Allows you to run test both online and offline
 - Enables easy integration of new resource into the system
- Moodle:
 - Available in over 100 languages
 - For security purpose, it allows you to deploy the platform on a private secure server on cloud
 - Compatible with any browser and any access device
 - Has a large global community for any kind of support
 - Provides collaboration tools and activities for group learning.

4. PROPOSED SYSTEM: Proposed system is an automated and effective system. The major benefit of this system is that it includes all the features of current system with some added functionalities.

The proposed system consists of the following features:

- Biometric and online attendance
- Easy navigation to specific questions
- Library and HR managements
- Mobile application
- Platform independent
- Instant generation to test results
- Supports formulae and equations
- Remote proctoring (monitoring and invigilation)
- Stores qualifications and certificates
- Lockdown screen
- Timer
- Generates graphically analyzed reports and results
- Role based access and user security
- IRIS Detection
- The candidate is watched by the camera which is in-built in the computer system

To protect the system from unauthorized access to data, password facility is incorporated. The proposed system has got many advantages. It is a personalized system which is made in a quick and easy referential manner. The advantages of proposed system, is that it is highly secured as one can access one's system. The questions for the exams will be prepared by the administrator and the answers will be published after the completion to e exam.

5. SYSTEM ARCHITECTURE:

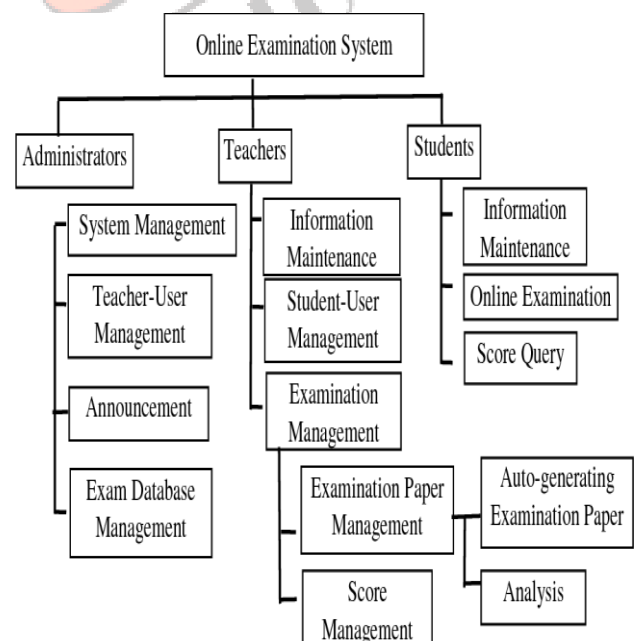


Fig: 3. System Architecture

5.1. ROLE OF ADMINISTRATORS: Administrator is high level entity who has access to all the features and operations of Online Exam. The administrator has access to System Management, Teacher-User Management, Announcements and Exam Database Management. The role of administrators is given by:

- Create a test
- Subject wise
- Topic wise
- Level wise
- Planning a test
- Type

5.1.1. Create a test:

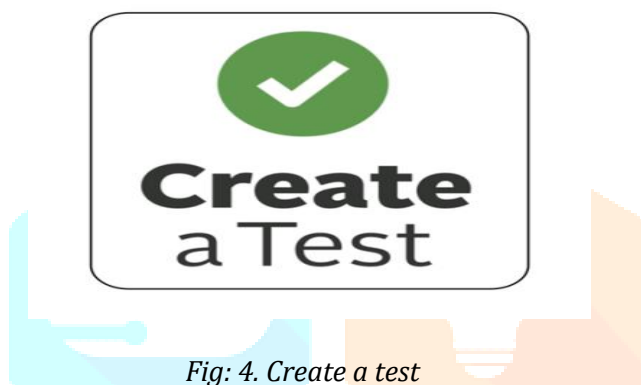


Fig: 4. Create a test

To create test for any type that the user wish for, it provides flexibility for all grades of students. To choose the options wisely the user need to login into their respective dashboard.

5.1.2. Subject wise:

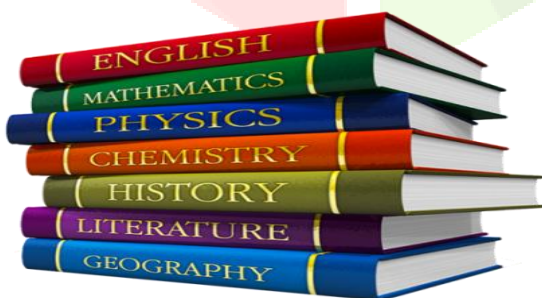


Fig: 5. Subject wise

For evaluation of preparation level in any subject, students can choose Subject Wise Test that enables the students to give better performance in their examination.

5.1.3. TOPIC WISE:



Fig: 6. Topic wise

After preparation, to test oneself it provides Topic Wise Test which focusses on each and every topic that is learned and also an option to evaluate knowledge on a particular topic.

5.1.4. LEVEL WISE:

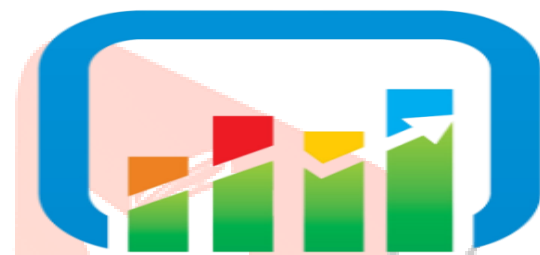


Fig: 7. Level wise

It includes many Examination Levels like Boards or School Examinations, Medical or JEE Mains and other Competitive Exams.

5.1.5. PLAN A TEST FOR ME:



Fig: 8. Plan a test

If the user is confused of Test Planning they are provided with an expert advice which helps to solve their queries by mentioning their subject, level and topic.

5.1.6. TYPE:



Fig: 9. Type

It provides with a feature of enabling previous question papers through which a student can get an idea of the questions which are asked before and pattern of the question paper.

5.2.ROLE OF TEACHERS: The teachers are middle level entities who provide us with the features like Information Maintenance, Student-user Management and Examination Management. Examination Management contains Examination Paper Management and Score management. Again this Examination Paper Management gives us Auto-Generating Examination Paper and Analysis.

5.3.ROLE OF STUDENTS: Students are last level entities who are also provided with Information Maintenance so that they can have the minimum knowledge of operating the computer system. Students are the one who attend the Online Examination. After declaration of results, if the student has any complaints/doubts about their obtained marks then they are provided with Score Query.

7. CONCLUSIONS

Online examination system (OLES) is a web based application. The main aim is to reduce paper work and turn all forms of documentation into digital form. It observes that the required information can be produced with accuracy in the automated system. The minimum knowledge user can also operate the computer system. The management is provided with brief result given by the system.

FUTURE SCOPE

For the people who have some defects in their eye should be provided with some other features that are not implemented in the current system.

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