

ONLINE EXAMINATION SYSTEM

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1. Introduction

1.1. Purpose

- ✓ The web Application provides facility to conduct online examination world wide.
- ✓ It saves time as it allows number of students to give the exam at a time and displays the result as the test get over, so no need for wait for result. It is automatically generated by the server.
- ✓ Administrator has a privilege to create, modify and delete the test paper and its particular result.
- ✓ User can register, login and give the test with its specific id
 and see the result as well.

2.Overall Description

2.1. Product perspective

OES is an on-line examination system. It is accessible via the Internet, 24 hours a day, 7 days a week. The objective of this app is to reach and connect candidate and examiner in remote communities and conduct exams in a virtual environment online. This app will only allow the registered users to enter the test module. The various stages in the app are as follows:-

Login

System Overview

Test

Result

Login:

This window offers the user two choices for logging into the system according to the preset privileges - Candidate login and Administrator

login. The candidate login will take the user to the user profile. The Administrator Login will take the user to the administrator profile. System Overview:

This window can only be accessed by the administrator. It allows the administrator to add and edit exams.

Test:

This window contains all the exams candidate can give. All these exams are organized according to the categories they fall in. The test window will be different for students and corporate employees.

Result:

This window displays the result of exams the candidate has just appeared. This data will be saved and displayed in the user profile. If the score is in top 10, the result will also be displayed in the rankings area of result window.

2.2. User classes and characteristics

The various users of this app are classified into two types:-

- Administrator
- Candidate -
- Student
- Corporate Employees

This app requires the user to have characteristics such as the user should be able to communicate and write in English and should have previous experience of giving an online exam. If not, the candidate should be instructed about the basics usage of the app by authorized personnel.

2.3. Operating System

This app is internet based so it will run in any operating system with internet access through a web browser.

2.4. Design and Implementation

The candidate is allowed to give the exams any number of times, until specified otherwise by the administrator while building the test. While giving the exam the candidate is given only a set amount of time and the remaining time should be displayed, after which the exam should close and display the result.

2.5. Assumptions and Dependencies

Proper working of this app is dependent on the internet connectivity of the users' computer

Assumptions and dependencies:

- It is assumed that the user has basic knowledge of the system (i.e. he/she is not a first time user) as any action by the user is considered valid during an examination.
- It is assumed that the data entered by the user while registering is true.
- It is assumed that the candidate does not cheat during the exam as there are no supervisors around to monitor.

3.System Features

Some Performance requirements identified is listed below:

- ✓ The database shall be able to accommodate a minimum of 1,000 records of Users.
- ✓ The software shall support use of multiple users at a time.
- ✓ There are no other specific performance requirements that will
 affect development.

3.1. Functional Requirements

Functional requirements are nothing but the services provided by the system to its end user.

There are three sub modules in this phase.

- Candidate module
- Examiner module
- Administrator module

The functionality of each module is as follows.

Candidate module: The candidate will logon to the software and take examination. He can check his previous exam result and his details.

Examiner module: The database is prepared and loaded into the software. Selection can be done by the examiner.

Administrator module: The administrator collects all the result after successful completion of the examination.

3.1.1 Interface requirements

This section describes how the software interfaces with other products or users for input or output.

3.1.2 User interface

Application will be accessed through a browser interface. The interface would be viewed best using 1024 x768 and 800 x 600 pixels resolution setting. No user would be able to access any part of the application without logging on to the system.

4.Non functional Requirements

4.1. User Interfaces

Application will be accessed through a browser interface. The interface would be viewed best using 1024 x768 and 800 x 600 pixels resolution

setting. No user would be able to access any part of the application without logging on to the system.

•Registration Screen:

Various fields available on this screen will be:

- -Login Name
- -Email Id
- -Password
- •Login Screen:

Fields available on this screen are:

- -Login Name
- -Password
- •Entering Questions:

Various Fields are:

- -Questions
- -Options (4)
- -Correct Answer
- •Exam Details Screen:

Various Fields are:

- -Exam Name
- -No. Of Questions
- -Time Limit
- -Passing Marks
- Result Displaying Screen:

Various Fields are:

- -No. Of Correct Questions
- -No. Of Incorrect Questions
- -Total Marks
- -Result(Pass/Fail)

3.1.1. Hardware Interfaces

Screen resolution of at least 800X600 is required for proper and complete viewing of screens.

Higher resolution will be accepted.

3.1.2. Software Interfaces

- -Any windows based operating system.
- -MySql Server Database
- -Php and javascript

5.Other nonfunctional requirements

5.1. Performance Requirements

Some performance requirement identified is listed below:

- The software shall support use of multiple users at a time. There are no other specific performance requirements that will affect development
- The database shall be able to accommodate a minimum of 10,000 records of students.

5.2. Safety Requirements

The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database backup.

5.3. Security Requirements

Some of the factors that are identified to protect the software from accidental or malicious access, use, modification, destruction or disclosure are described below.

- ✓ Keep specific log or history data sets
- ✓ Assign certain functions to different modules
- ✓ Restrict communication between same areas of the program
- ✓ Check data entries for critical variables
- ✓ Latest of the software will incorporate encryption techniques In the user/license authentication process

✓ Communication needs to be restricted when the application is validating the user or license. (i.e., using https).

6.Software Quality Attributes

The Quality of the System is maintained in such a way so that it can be very user friendly to all the users.

The software quality attributes are assumed as under:

- 1. Accurate and hence reliable.
- 2. Secured.
- 3. Fast speed.
- 4. Compatibility