ONLINE EXAM SYSTEM REPORT

1. **Which one will be your project model waterfall, incremental or reuse-oriented development? Explain in details and why?**

The online test system is the incremental development model.

Developing systems through incremental release requires first providing essential operating functions, then providing system users with improved and more capable versions of a system at regular intervals. This model combines the classic software life cycle with iterative enhancement at the level of system development organization. This in turn accommodates the provision of standard software maintenance contracts. It is therefore a popular model of software evolution used by many commercial software firms and system vendors. This approach has also been extended through the use of software prototyping tools and techniques, which more directly provide support for incremental development and iterative release for early and ongoing user feedback and evaluation.

1. **Write full story of your project features.**

Jack is a student who wants to make his exams easier and faster. And he wants to do it through the internet instead of paper and pen. To do this, you need to know the features of the online exam system. The features of the online exam system are: "Exam Instructions", "Accessibility of Exam Content", "Current Time of the Exam Content", "Time Limit of the Exam", "Delivery Paths", and "Issue Publication".

If Jack chooses “Exam Instructions”, the exam instructions will show the basic content of the exam and something to consider. Generally, total questions, full score, transition rate, transition score, time limit and so on. The following items are included in the instructions page.

If Jack selects “Accessibility of Exam Content”, predefined accounts and passwords can be set to preserve content. Students can register themselves online. Only authorized users can receive the evaluation content.

If Jack selects "Valid Time for Exam Content", students can log in to their exam and password by logging in to the exam system to complete the exam within the current time frame. The exam will not be available when the valid period expires.

If Jack selects “ Time Limit of the Exam”, students can enter the system to take the exam after the start time. When the test period expires, the exam results will be submitted by the students. Even if the exam is not complete at the time, it will also be presented to the reporting system.

If Jack selects “Delivery Paths”, you can submit your responses to the reporting system. Students can review and modify the questions that have been answered before answering their answers.

If Jack selects “Issue Publication”, scores can be calculated automatically for some reviews of objective questions when the tests are finished. Students can see the results instantly and visit the system website to check the test results.

1. **Write detailed test case of your project features.**

Input:

1.Predefined accounts and passwords can be set to preserve content.

2.Students can register themselves online.

Tests:

1.Test the accessibility of exam content for entries

2.Test the current time of the exam content for entries.

3.Test the time limit of the exam for entries.

Output:

The scores can be calculated automatically at the end of the tests. Students can see the results instantly.

1. **Write full requirements definition of your project.**

User Requirement Definition:

1. With the online exam system, students can register themselves online.
2. They can then take the direct exam as they are registered.

System Requirement Definition:

1.1.You must have a scanner installed on the electronic device you are using. Browsers like Internet Explorer, Chrome, Firefox

available.

1.2.The latest version of Flash player for the system to open properly

must be installed in the system.

1.3.The number of questions for each exam may be variable.

1.4.The duration of the exam and the rules for the exam can be defined as variable.

1. **Write full nonfunctional requirements of your project.**

**Performance Requirement:**

After completing the exam, the entire score of the student will be calculated.

The software shall support use of multiple users at a time.

**Usability Requirement:**

The website should be user friendly and should require least effort to operate.

**Portability Requirement:**

The website is made using HTML, CSS ,JSP, PHP, etc. which are platform independent and can be transported to other servers with minimum effort.

**Availability Requirement:**

Students can take exam only the previously allotted time slots, however can open site anytime to access other information.

Schools can register for the exam anytime.

This system must run on multiple operating systems and support windows operating system.

1. **Fill your project nonfunctional requirements metrics table.**

Property Measure

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Speed ---------------------------------------------- User/Exam response time

Exam time

Time ------------------------------------------ Time limit of the questions if any

Size ------------------------------------------------ RAM:256 Mb or more

Hard Drive:10 gb or more

Ease of use --------------------------------------- Posting questions

Creating questions

Reliability ------------------------------------------ Mean time to failure

Availability

Portability -------------------------------------------- HTML, CSS, PHP, JSP

1. **Write full requirements of each part of your project.**

-The system should show the correct, incorrect and clear score after each exam(The examination should not be done frequently to get better efficiency).

-The system must know the conditions to be tested(A self-test routine can discover hardware and software problems and alert the user to the fact the normal operation).

1. **Write full structured requirements of each part of your project.**

**A structured specification of a requirement for an online exam system**

Function : Students' online exams

Description : The Online Exam System uses the online exam management module to eliminate the difficulties encountered in evaluating, evaluating student performance and producing exam statistics.

Inputs : Reading to Student’s information($email, $password)

Outputs : Exit the system using ($ref).

Destination : Online examination is conducting a test online to measure the knowledge of the participants on a given topic.

Action : Online examination project accesses student by conducting online objective tests.Responses by the candidates will be checked automatically. It reduces time consuming. To allow teacher to create tests and answers.

Requirement : Performance, usability, portability, availability

Side Effects : None

1. **Write tabular computation of your each function/model of your software.**

**Condition Action**

Student level (q>4) Result=True

Student level (q<4) Result=True

Student level (q<2,q>2) Result=True

Student level (q=0) Result=False

1. **Write detailed scenarios for your project.**

**Initial Assumption:**

In the web-based exam system, valid keys are user names and passwords so that the system can identify the user. Information security is critical because it will automatically identify each entry with a user name and password as the system automatically identifies it as user input. Students enrolled in the course can automatically create their user name and password.

**Normal:**

When students enter the username and password correctly, they enter the student module web page designed for them. If there are any exams in this screen, the student will be able to see the information (number of questions, number of correct answers, score, etc.) and the exams defined for him / her. When the student chooses which of these exams, the examination starts automatically. Based on the selected exam question, the system will automatically

accounts.

**What Can Go Wrong:**

They should be prevented from entering the exam except the place and date indicated. The student cannot remain in the exam for the exam. After answering the questions, the student may end the exam or the system will automatically be directed to the evaluation page when the exam period is over. Limits can be imposed on the computer where the student will take the exam in the local network or on the Internet. In this context, an IP restriction has been made for the computers in which the exam will be conducted in the online examination system. In other words, the IP of the computer where the student will take the test should be defined in the system. Thus, it will not be possible for the student to take the exam from a different computer in a different place and to answer the questions. In this way, the security of the online examination system is increased by one level. In this system, session management also prevents the same user from starting different sessions from different computers at the same time

**Other Activities:**

Students can refresh and delete records from the system.

**System State On Completion:**

Students are logged on. The student record including exam history is

entered in the database, a record is added to the system log showing the

start and end time of the session and the student involved.