

Manual Testing Hands On: Understand SRS

Lab Exercise - 8

Objective

1. Able to answer key questions about Online Examination System SRS.
2. Develop an ability to read and comprehend software requirements

Type of Activity:

Group activity

Instructions to Students:

- A. Read the SRS for online examination engine individually.
- B. Discuss answers of the questions given at the end of SRS in group.

SRS - Online Examination System

Table of Contents:

3. System Users
4. Admin Module
 - a. User Management
5. Trainer Module
 - a. Question Bank Management
 - b. Paper Pattern Configuration
6. Counselor Module
 - a. Student Registration
7. Examiner Module
8. Student Module
9. Diagrammatic Representation
10. Non – Functional Requirements

OAS should be web based, intranet site not accessible outside company firewall.

1. System Users:

OAS will be used by following users:

- A. **Admin:** Administrative task, user management, configuration management
- B. **Trainer:** Create exams
- C. **Examiner:** Allocate exam to students
- D. **Students:** Appear for exam
- E. **Counselor:** Collect exam fees and create login to student

Refer last section to see the overview of the system model.

2. Admin Module:

Admin user is responsible for managing users (except students) and entering master data.

2.a. User Management:

- A. Administrator should be able to create, modify and remove users from the system.
 - a. Users include Trainers ,counselors, center managers, regional managers, business heads
- B. During user creation, a temporary password should be created by Admin which needs to be reset by users on first login.
- C. Admin can reset passwords for users if needed
- D. User IDs should not be duplicate and should be a minimum of 6 characters. It can be a combination of alphabets, special characters and numerals.
- E. Admin should be able to add new subject and remove existing subject
- F. Admin should be able to allocate subjects to Trainers

3. Trainer Module:

3.1. Question Bank Management:

- A. Trainer should be able to create topics under the subject
- B. Trainer should be able to add, remove, modify and view questions
- C. **Addition of question should include:**
 - a. Select topic to which question should belong
 - b. Entering question text
 - c. Entering answer options
 - d. Indicating correct answer option – Only one correct option is allowed
 - e. Setting difficulty level (Easy, medium, complex)
- D. Each easy question would have 1 mark, medium will have 2 marks and complex will have 3 marks
- E. Each question should get saved with unique ID

3.2. Paper pattern Configuration:

- A. Trainer should be able to configure paper pattern for the subject allocated to him
- B. Creation of paper includes:**
 - a. Selecting topics to be included in paper
 - b. Setting number of questions per topic to be included in paper:**
 - i. Easy
 - ii. Medium
 - iii. Difficult
 - c. Setting time duration for exam
 - d. Setting passing %:**
 - i. Passing percentage should not be less than 40%
- C. Trainer should be able to modify paper pattern
- D. Once exam is created by examiner, the questions need to be selected from question bank based on the exam configuration. Randomization should be done for the question sequence
 - a. For example if database has 20 easy questions for Topic A in Subject 'S1' and if paper pattern includes 4 easy questions for topic A, any 4 questions out of 20 should be randomly included in the exam created by examiner

4. Counselor Module:

4.1. Student Registration:

- A. Once counselor receives exam fees from students, he should register student. Exam fee collection, receipt printing etc. is not part of this system.
- B. Student registration should capture following mandatory data for the student:**
 - a. First name, Last name
 - b. Subjects of exam
 - c. Email ID
 - d. Mobile number
 - e. Fee receipt number
- C. Unique ID should be created for each student after registration

5. Examiner Module

- A. Examiner should be able to create a batch and add registered students to the batch
- B. Examiner should be able to set exam paper date and time for a batch
- C. Notification email and SMS should be sent to students once they are allocated an exam

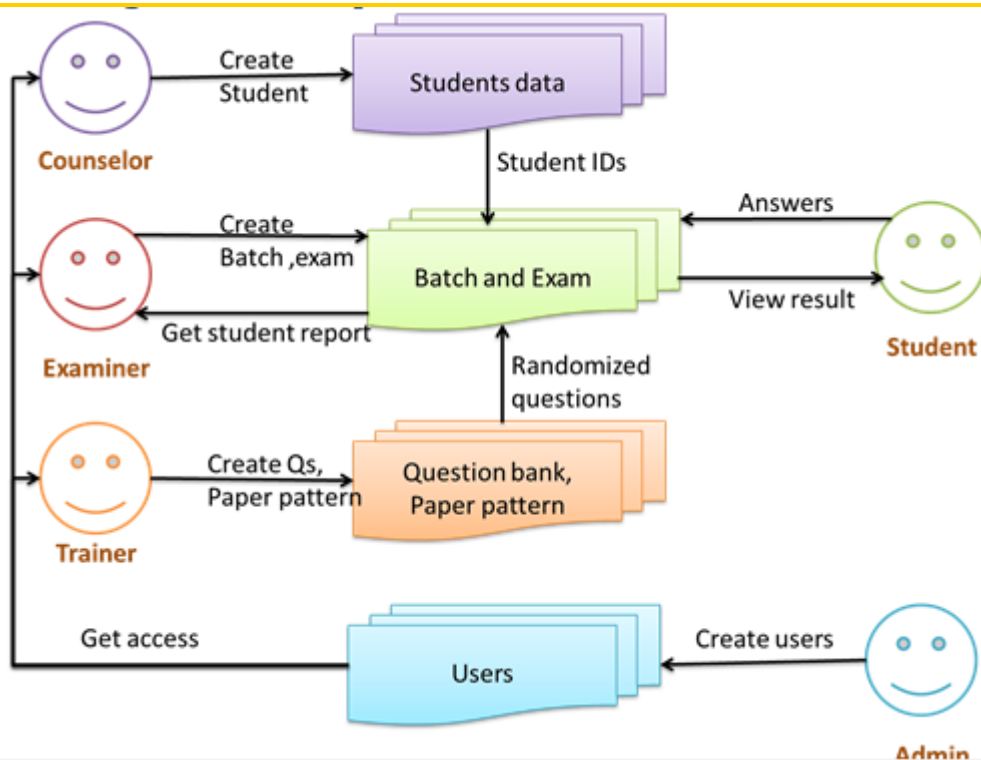
D. Notification should include exam ID and one time password for the student:

- a. Password should be autogenerated by the system
- E. System should be generate individual student's report in PDF format after completion of exam
- F. Examiner should be able to send certificate to student on email

6. Student Module:

- A. Students are allowed only one attempt for exam.
- B. Registered students should be able to appear for the exam with the assigned ID and password
- C. Students should have ability to move to previous and next question with or without answering current question
- D. Student should be able to mark question for review
- E. Student can finish exam at any point of time within the time limit set for the paper
- F. Time remaining should be displayed to student
- G. Warning should be displayed when last 5 minutes are remaining
- H. After finishing an exam, student should be shown his result which should include:**
 - a. Student details
 - b. Subject
 - c. Topic wise percentage
 - d. Total percentage
 - e. Pass / Fail status
- I. Grade (A/B/C/D)

5. Diagrammatic Representation:



8. Non - Functional Requirements:

- 500 students should be able to appear for exam concurrently
- System should be easy to use for students, Trainers and other users.
- Student certificates should be digitally secured (no one should be able to make change in the certificate)
- Every new question in student module should get loaded within 3 seconds during examination