Online Entry Test Management System

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Certification Of Completion

This is to certify that this report embodies the project work done by full hard work of all project members. We completed all requirements of our project. Our project title is Online Entry Test Management System.

Abstract:

This project was developed as an online assessment tool for different institution with the aim of providing a better, convenient and effective way of conducting an admission test for the institution and maintaining the records.

This report analyze the improvement, impact, success and failures internet technologies have had in an academic environment to delivering online learning and assessing students on computer over the years likewise reviewed technologies in developing one for a working company. This project will eliminate the paper work situation currently used within the institution.

Project Definition

Online Entry Test Management System enables the admin to manage users, program, and many more records. Moreover, applicant can also attempt the exam and their records will be maintained in the database with their score. During examination 60 minutes of time will also be allowed.

Problem Statement

Each year thousands of students appear to attempt the admission test for any institution and this requires a lot of paper and due to this there is a lot of paper wastage. Moreover, maintaining records manually sometimes create confusion sometime and waste a lot of time, and another problem is the time management during exam. Therefore, this project is a complete solution for all afore mentioned problems.

As records of applicants will be maintained with their score, admin can manage different categories i.e user details, programs, exam details easily through the User Interface.

During examination 60 minutes of time will be allowed only otherwise the submission of exam will be done automatically through the system and that applicant will not be allowed to attempt the exam after the time given.

Admin

Admin is the manager of this Web Application. Admin manages these main functions:

- Manage User Details:

This function contains view User details, adding a new user, deleting, updating.

- Manage Programs:

This function contains view Programs, adding a new program, deleting, updating.

- Manage Questions:

This function contains view Questions, adding a new Question, deleting, updating.

Manage Options:

This function contains view Options, adding a new option, deleting, and updating.

Manage Answer

This function contains Answer, deleting, updating and adding a new answer for a question.

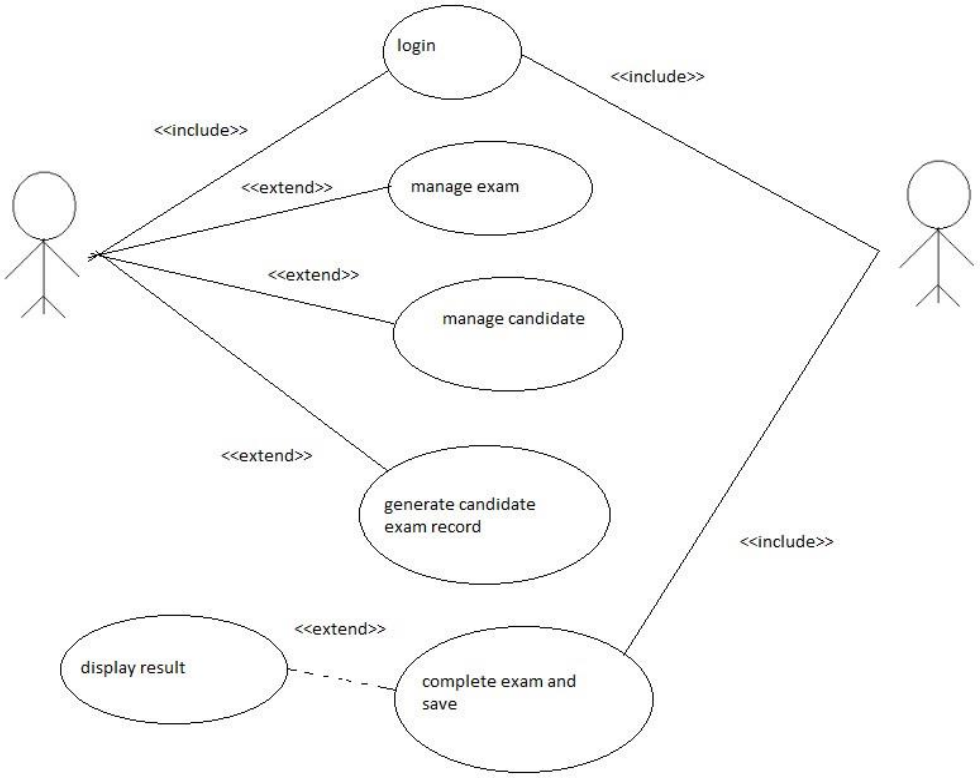
Applicant / Candidate:

:

- Applicant or Candidate is the person who is applying for the admission in any institution and for that this user needs to attempt the online entry test.

  - Applicant needs to login first and verify his/her details.
  - After verifying the account the applicant will start the exam and attempt the questions which are assigned in that exam within the time limit that is 60 minutes, otherwise exam will be ended automatically and applicant will be graded.
  - Score will be counted automatically (+1 on each correct answer)
  - After attempting all the questions applicant may end the exam and view his/her result and after that he may logout.

Initial USE CASE Model



Conclusion:

At the end of this stage an initial use-case model (10% -20%) has been completed give a chance to establish a vision document. An initial project plan was defined.

Use Case Narration:

1. The use case begins with managing exam.

Use Case	Manage Exam
Actors	Admin
Pre-Condition	Admin already registered on the system
Main Scenario	
Input Events From Actor:	**System Events And Responses**
1. Log on: Display a welcome message and request ID and password 2. Enter admin ID and Password: 1. Authenticate candidate 2. Authentication succeed. Have options to: 1. Add new question 2. Delete question 3. Update question Confirm option and save settings	
Alternative Scenario:	Admin no confirming to save options
Exceptional Scenario:	Candidate authentication fails: repeat the login procedure

2.

Manage Candidate

Use Case	Manage Candidate
Actors	Admin
Pre-Condition	Admin already registered on the system
Main Scenario	
Input Events From Actor:	**System Events And Responses**
1 Log on: Display a welcome message and request ID and password 2 Enter admin ID and Password: 1. Authenticate candidate 2. Authentication succeed. Have options to: 1 Add new Candidate 2 Delete Candidate Details 3 Update Candidate Details Confirm option and save settings	
Alternative Scenario:	Admin didn't confirm to save options
Exceptional Scenario:	Candidate authentication fails: repeat the login procedure

3.

Generate Candidate Exam Report

Use Case	Exam Report
Actors	Admin
Pre-Condition	Admin already registered on the system
Main Scenario	
Input Events From Actor:	**System Events And Responses**
3 Log on: Display a welcome message and request ID and password 4 Enter admin ID and Password: 1. Authenticate candidate 2. Authentication succeed. Have options to: 1. Exam completed by candidate: Show option of next subject. Print Option	
Alternative Scenario:	
Exceptional Scenario:	Candidate authentication fails: repeat the login procedure

4.

Complete Exam And Save

Use Case	Complete Exam And Save
Actors	Candidate
Pre-Condition	Candidate already registered on the system
Main Scenario	
Input Events From Actor:	**System Events And Responses**

1. Log on: Display a welcome message and request ID and password
2. Enter Candidate ID and Password: 1. Authenticate candidate 2. Authentication succeed.

Have options to:

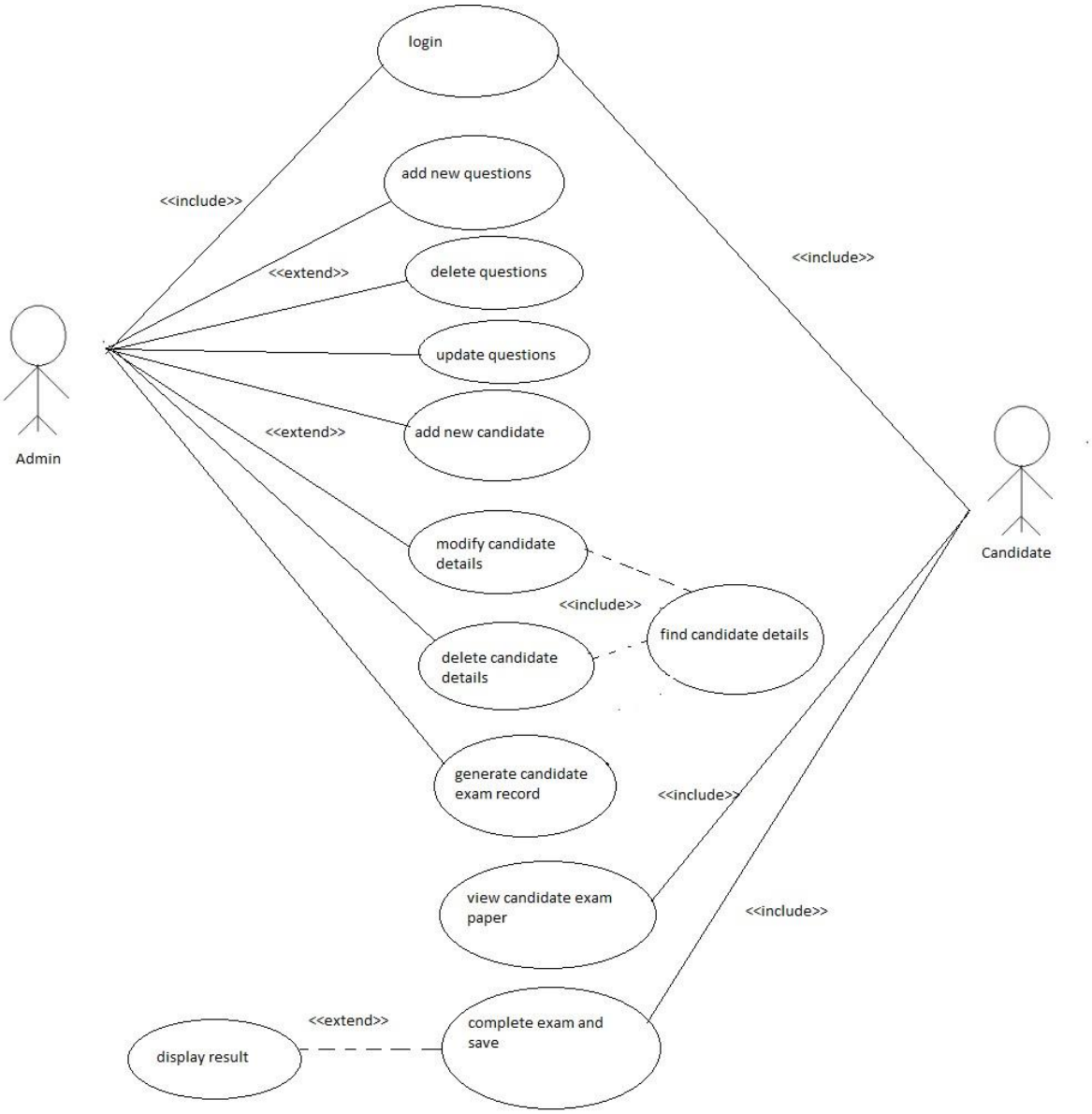
1. Start Exam: this option allow candidate to start an exam.
2. End Exam: this option allow candidate to end an exam.
3. Save: this allow the candidate to save the exam after completion.
4. Display result: this allow the candidate to display his result after exam.

Print Option

Alternative Scenario:	
Exceptional Scenario:	Candidate authentication fails: repeat the login procedure

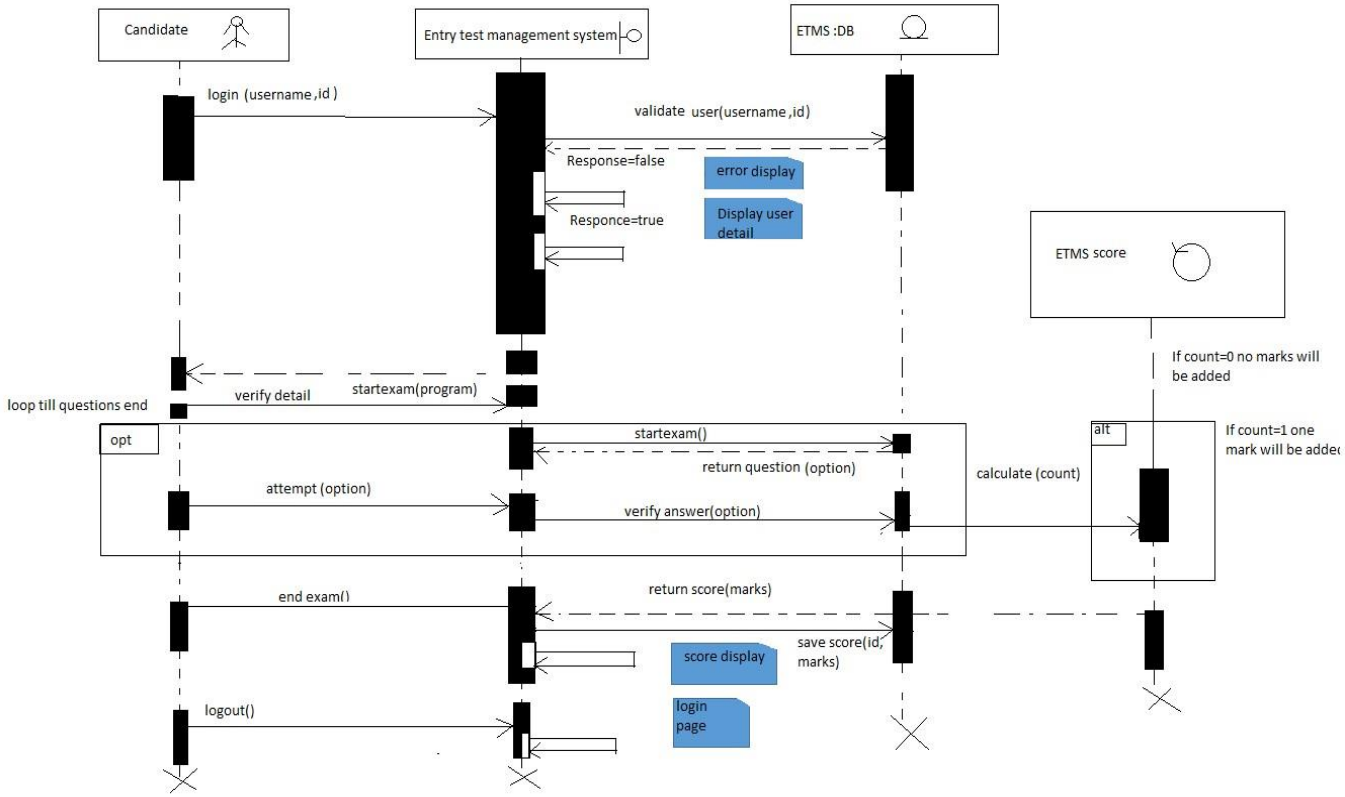
5.

Final Use Case Diagram

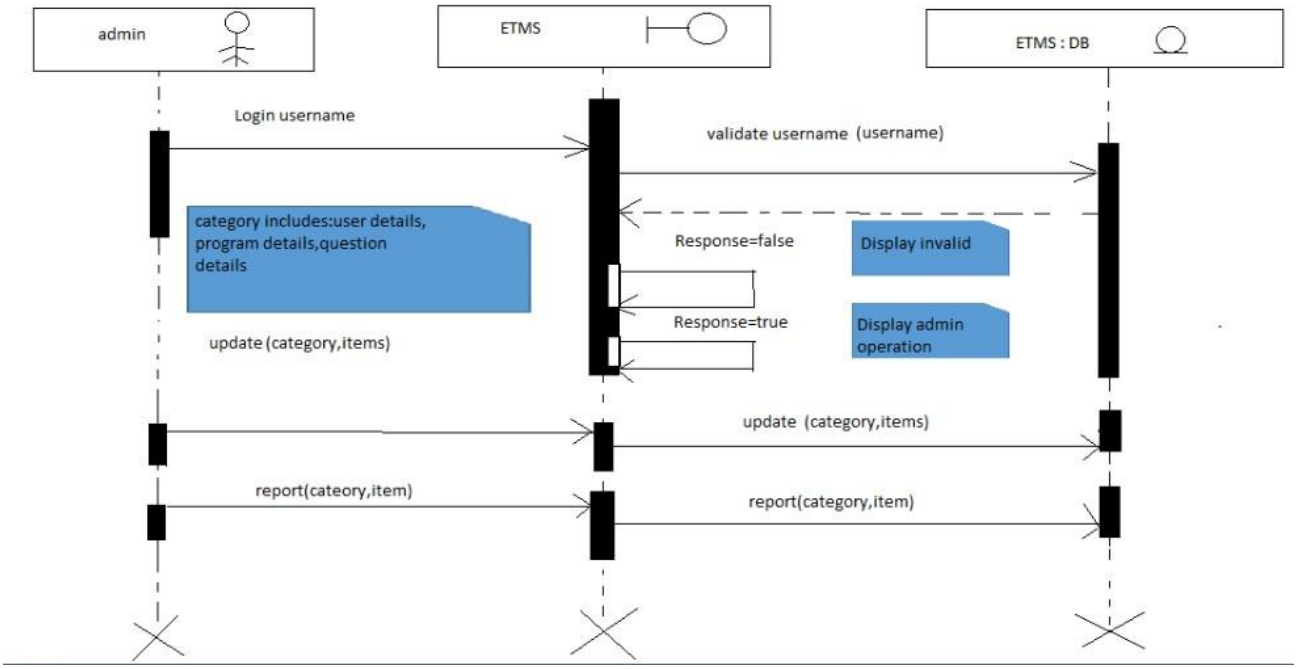


Diagram

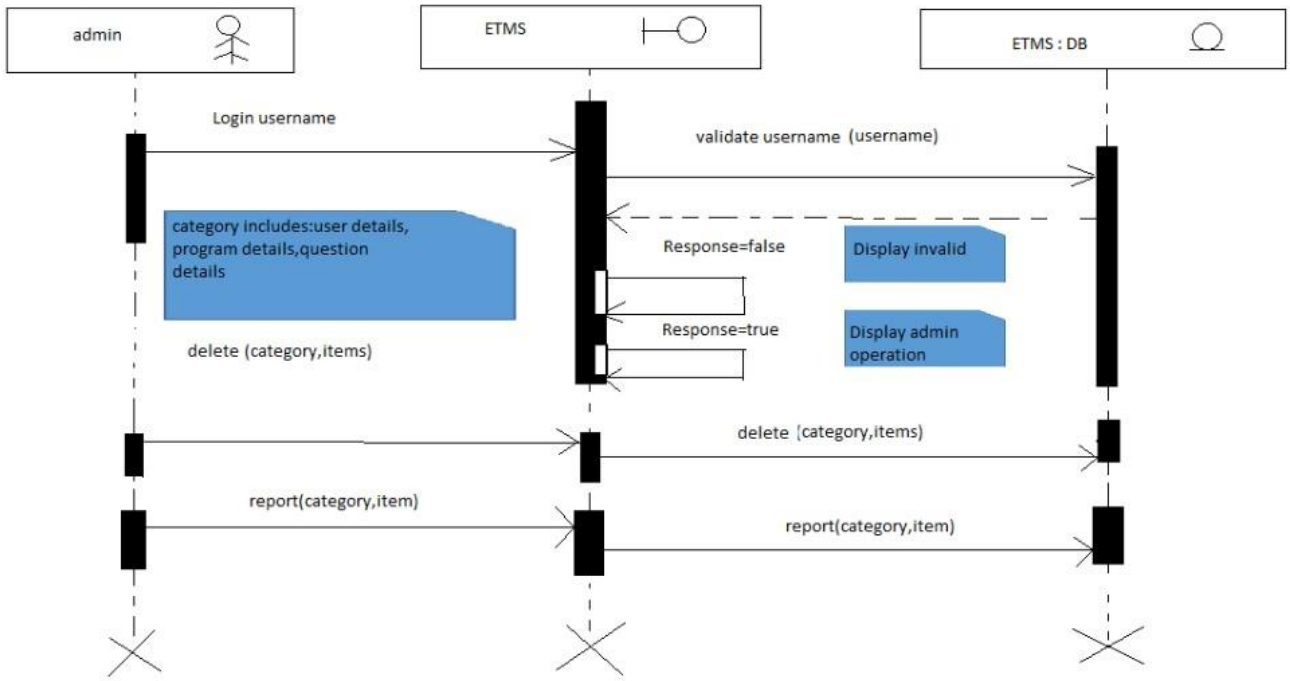
User Sequential Diagram



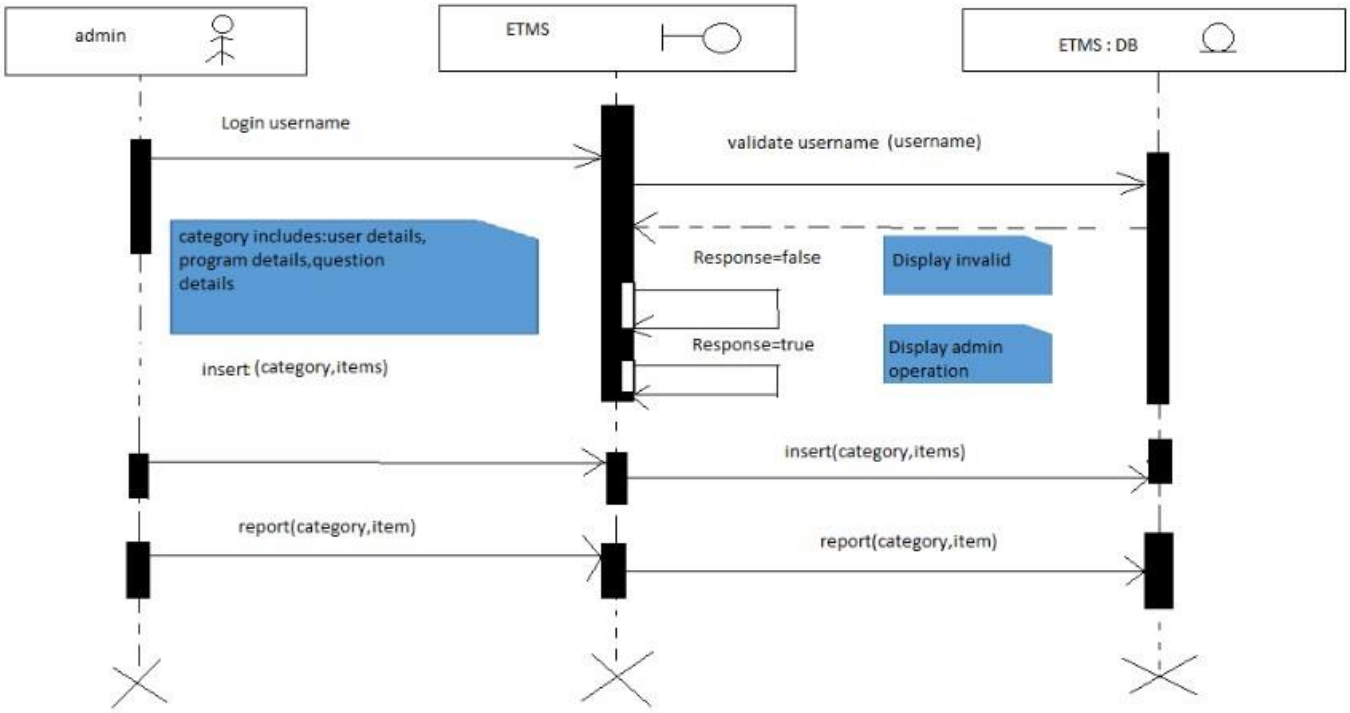
Admin Update Sequential Diagram



Admin Delete Sequential

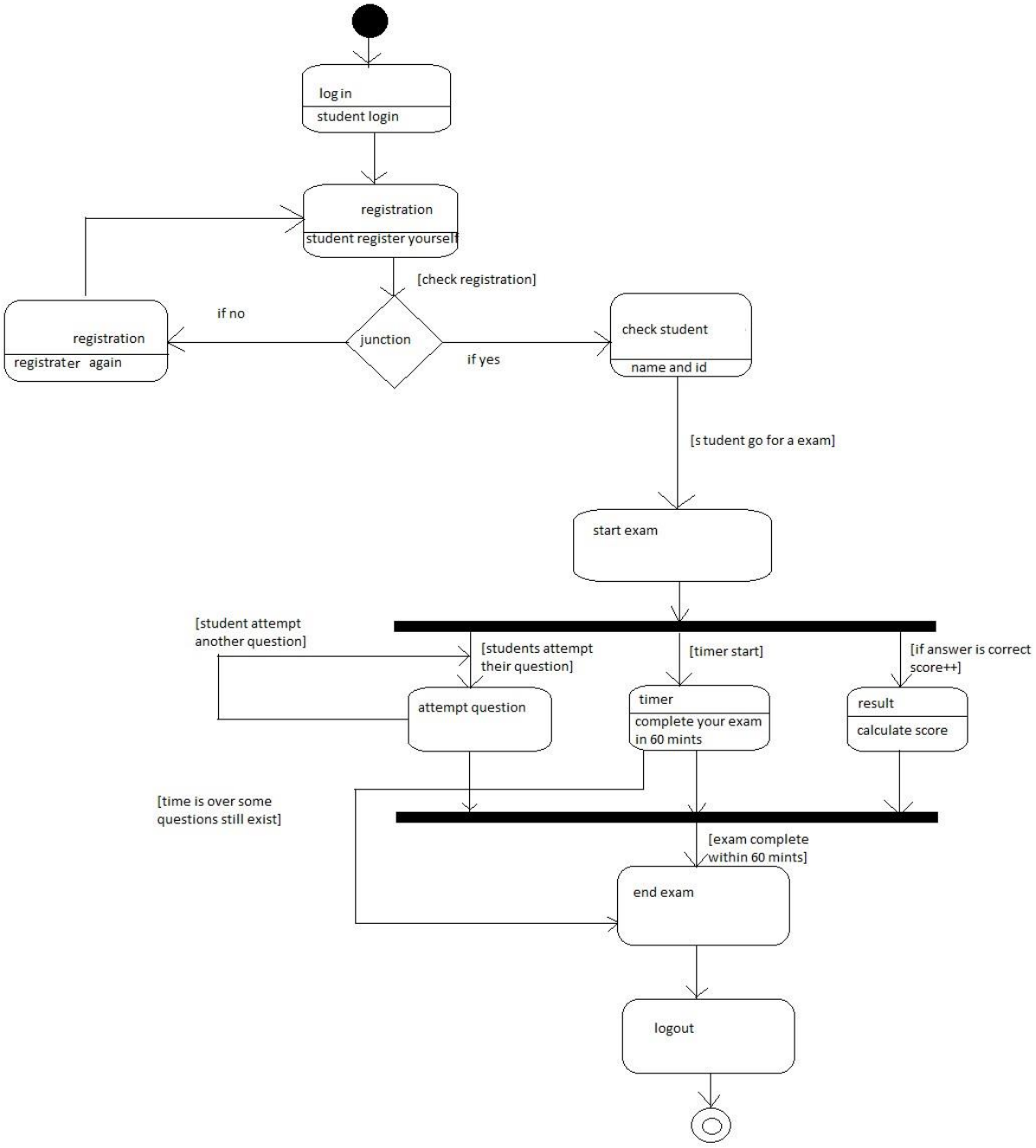


Admin Insert Sequential Diagram

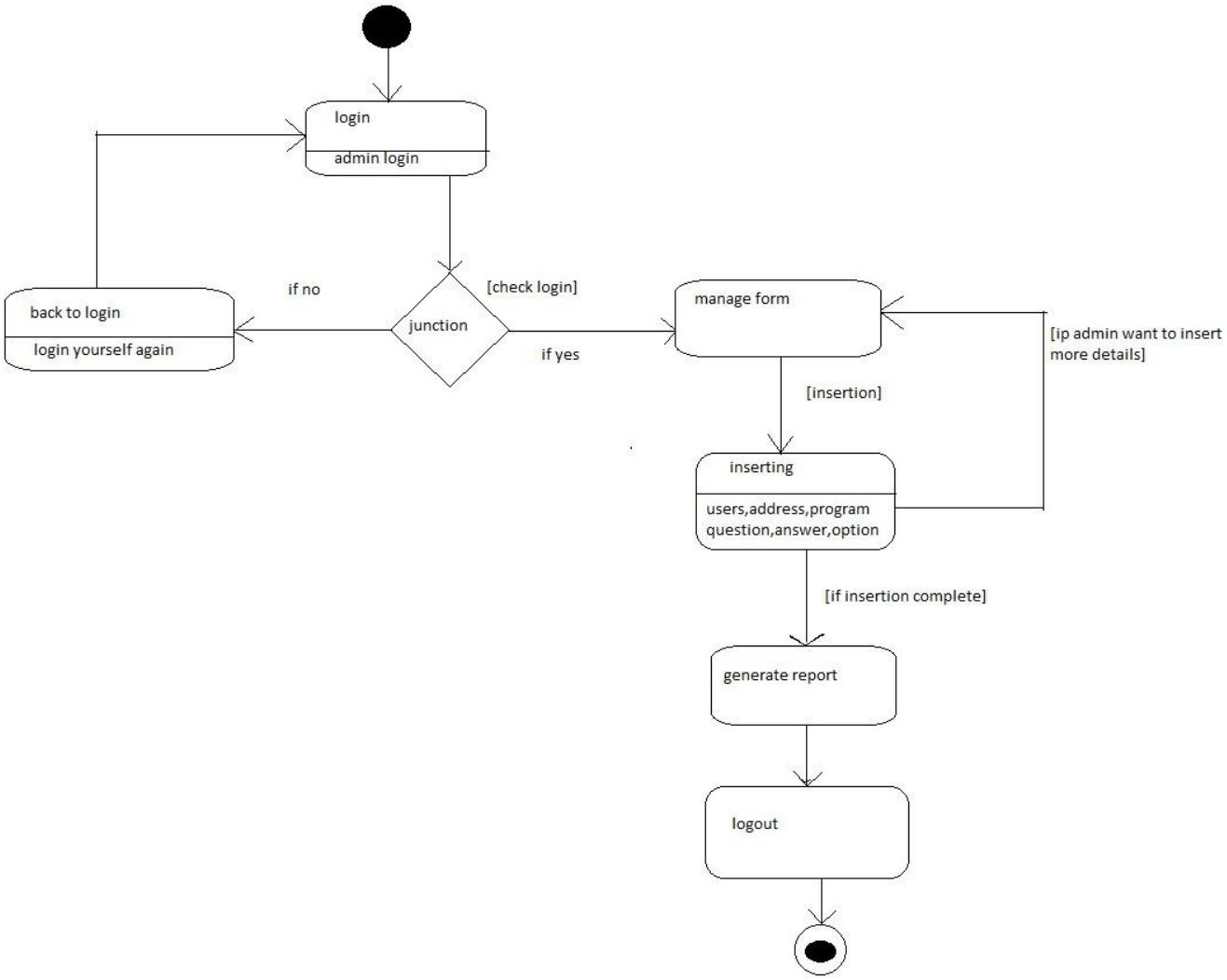


Diagram

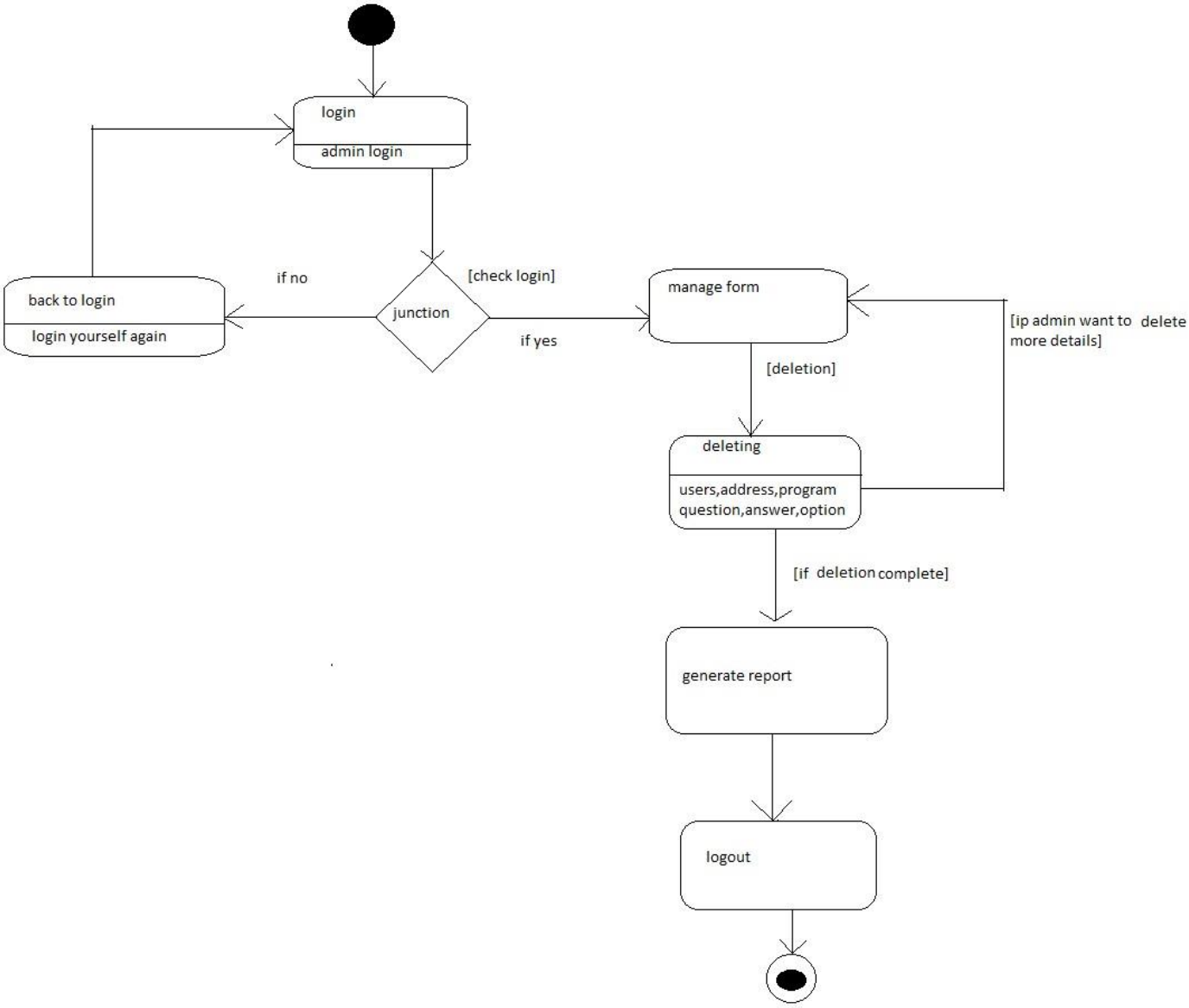
User State Chart Diagram



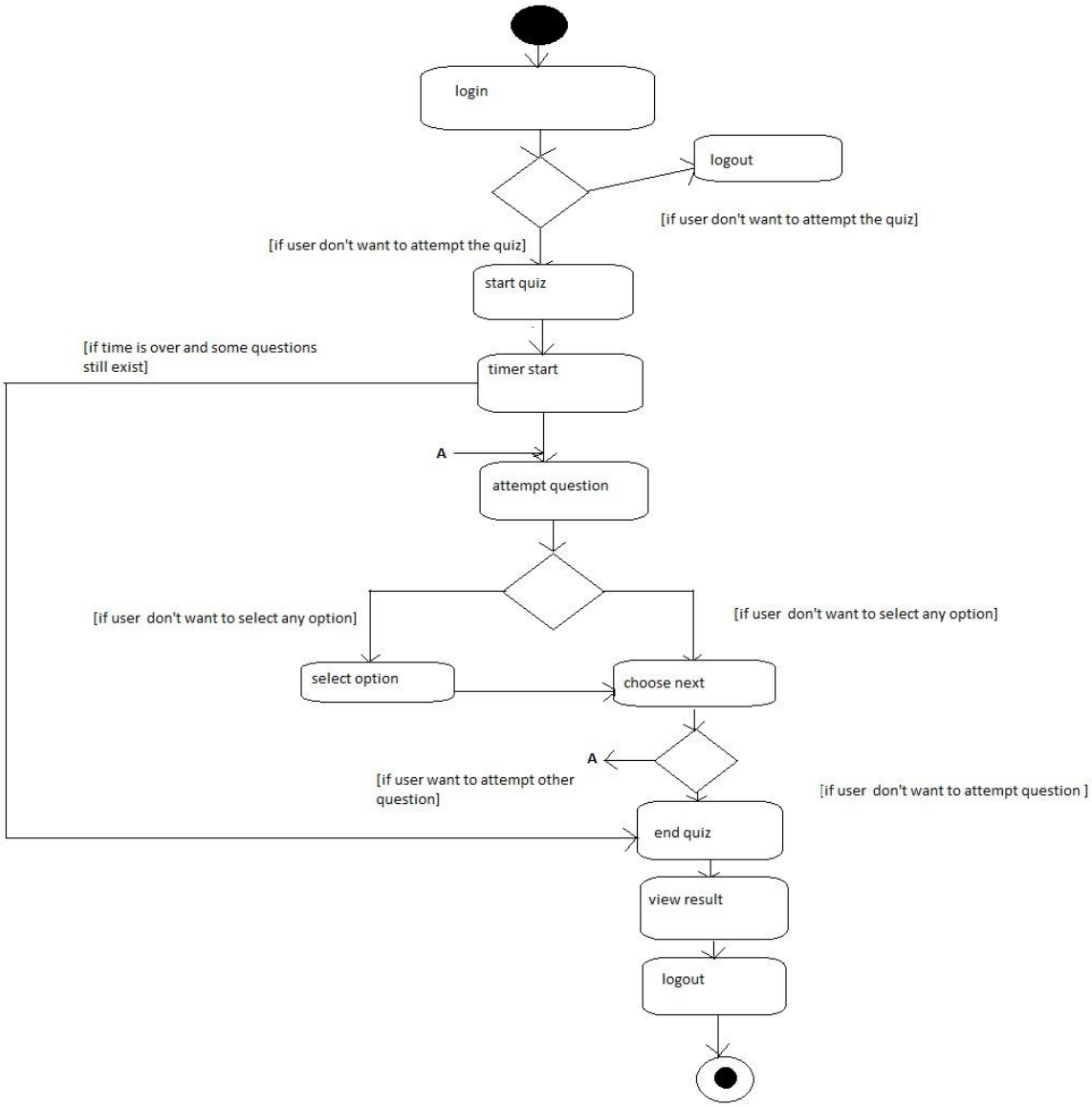
Admin Insert State Chart



Diagram

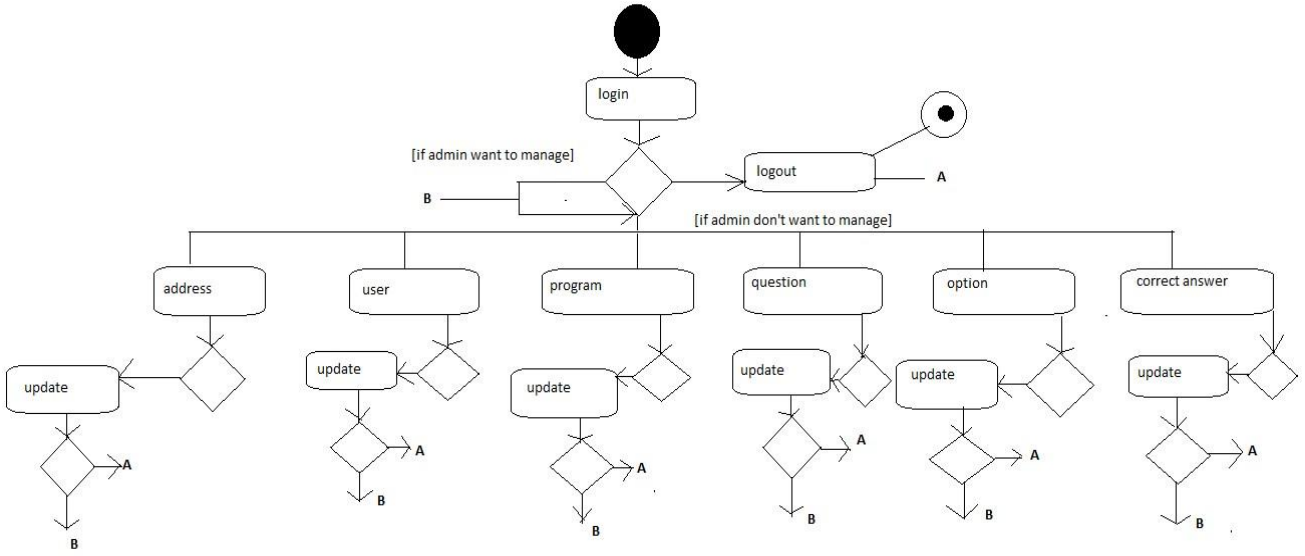

login
admin login
if no
[check login]
back to login
login yourself again
junction
if yes
manage form
[ip admin want to delete more details]
[deletion]
deleting
users,address,program
question,answer,option
[if deletion complete]
generate report
logout

User Activity Diagram

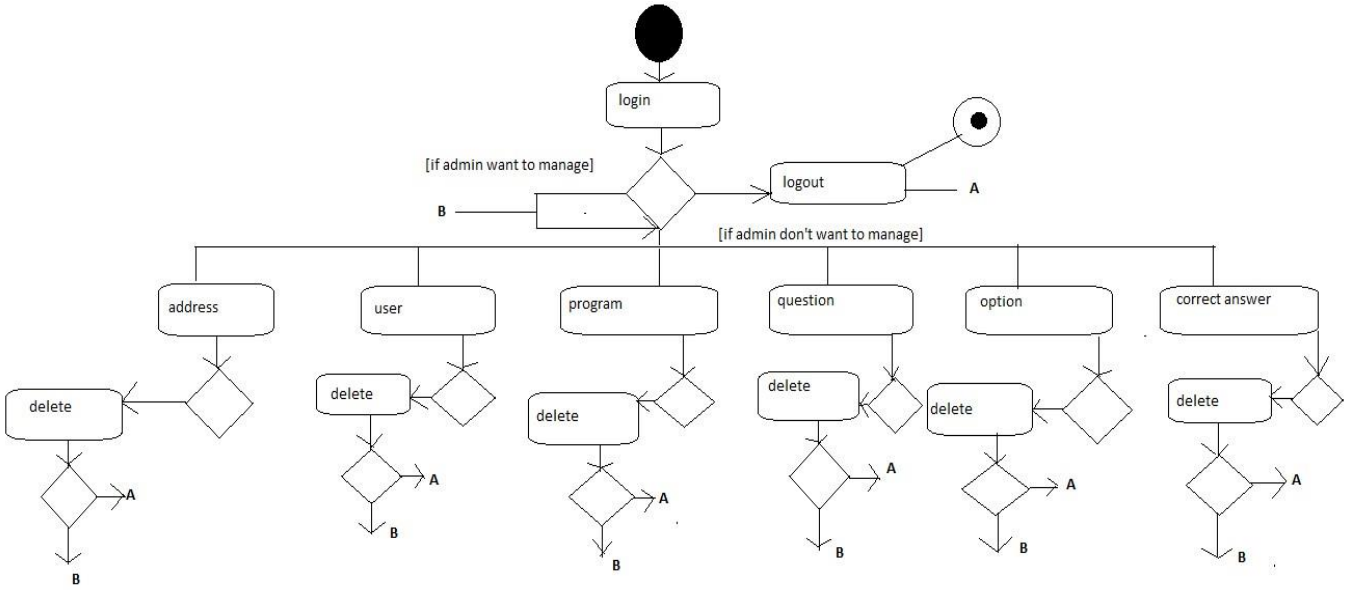


Diagram

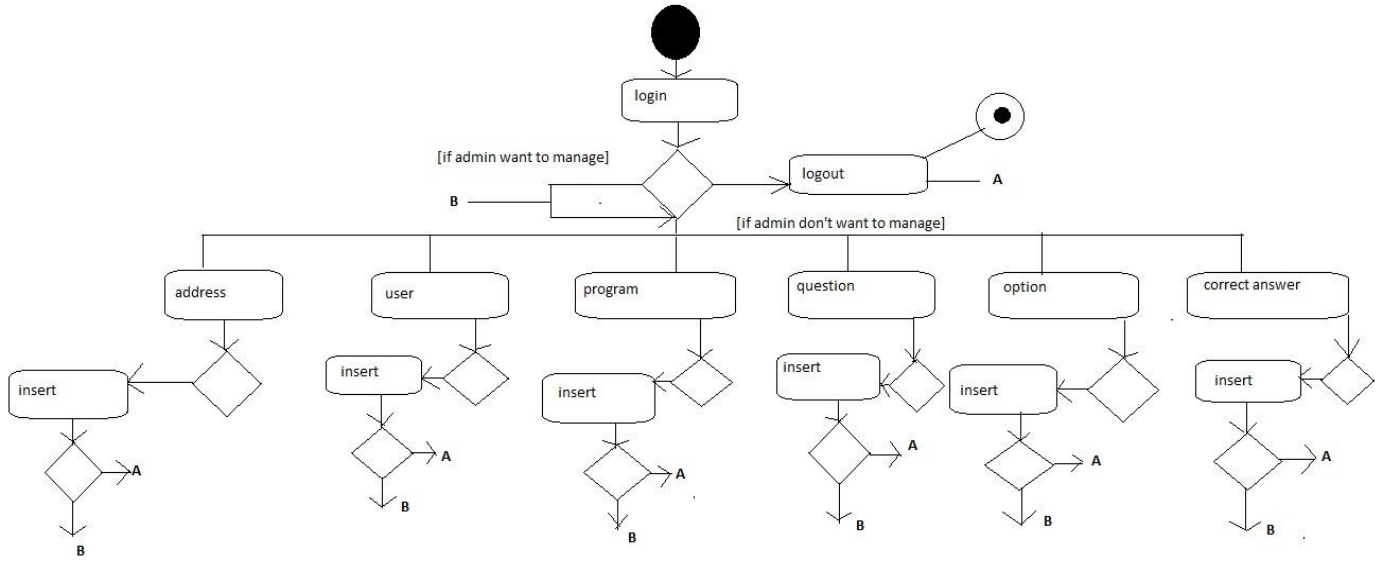
Admin Update Activity Diagram



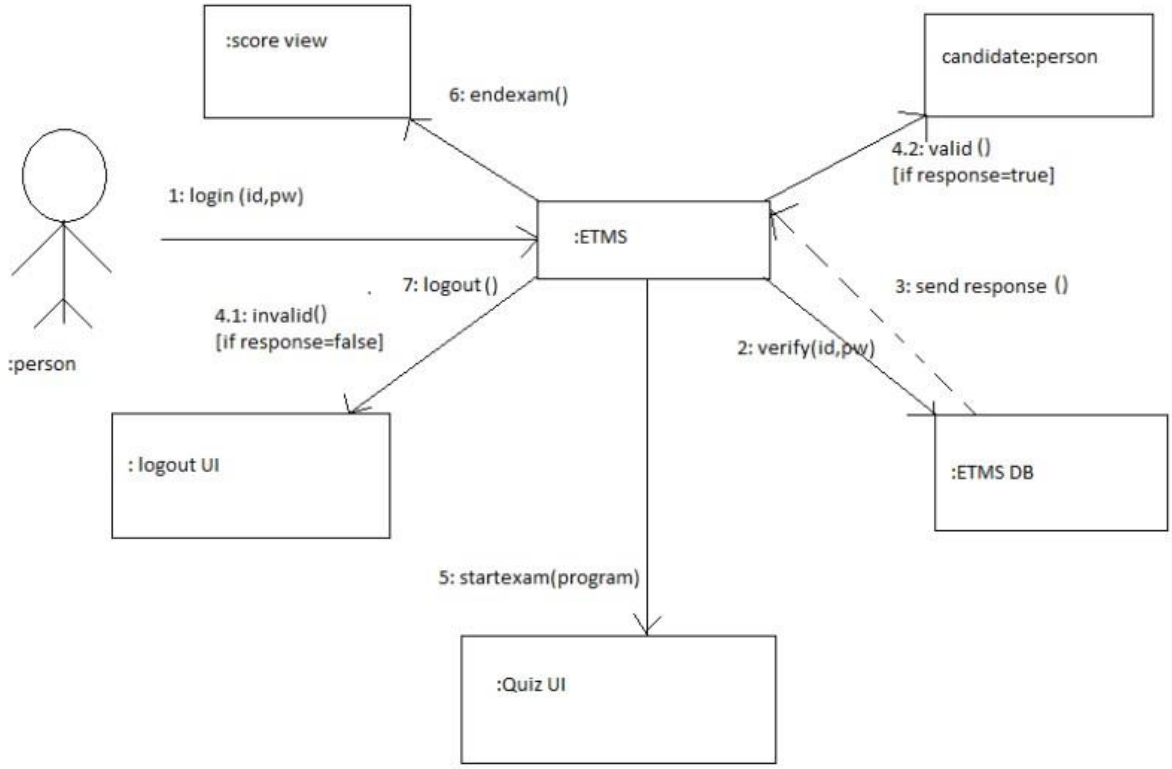
Admin Delete Activity Diagram



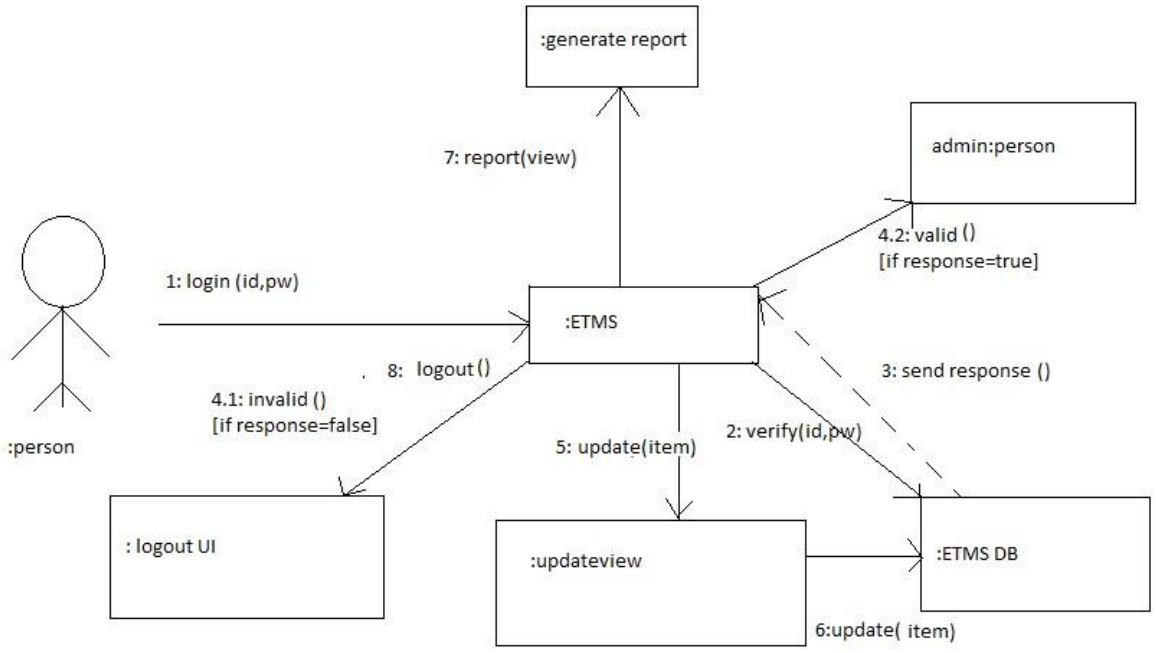
Admin Insert Activity Diagram



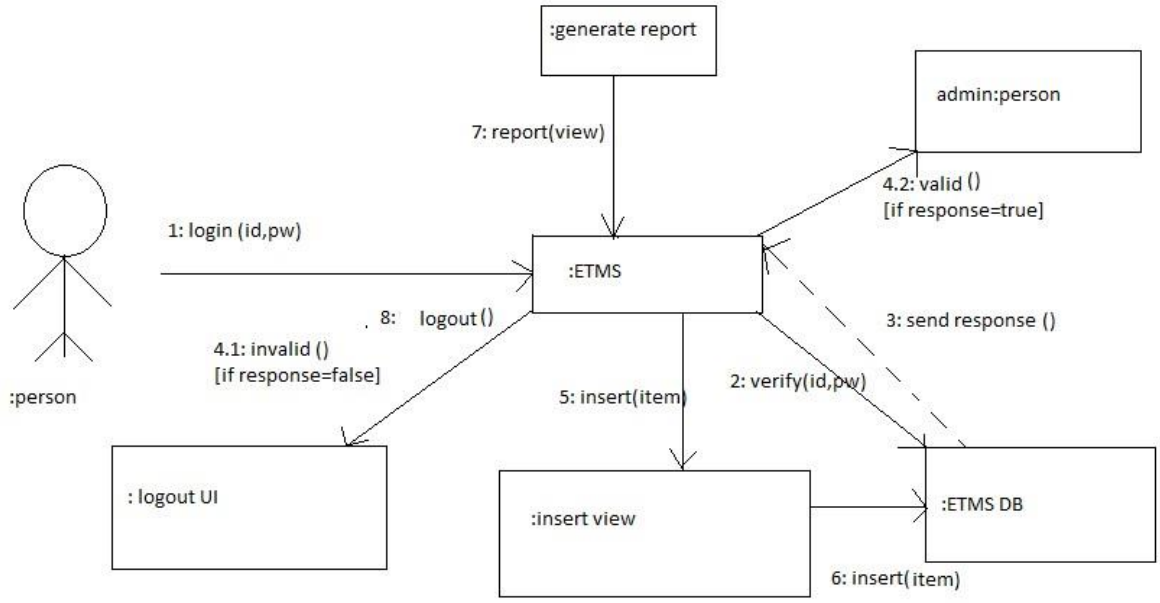
User Collaboration Diagram



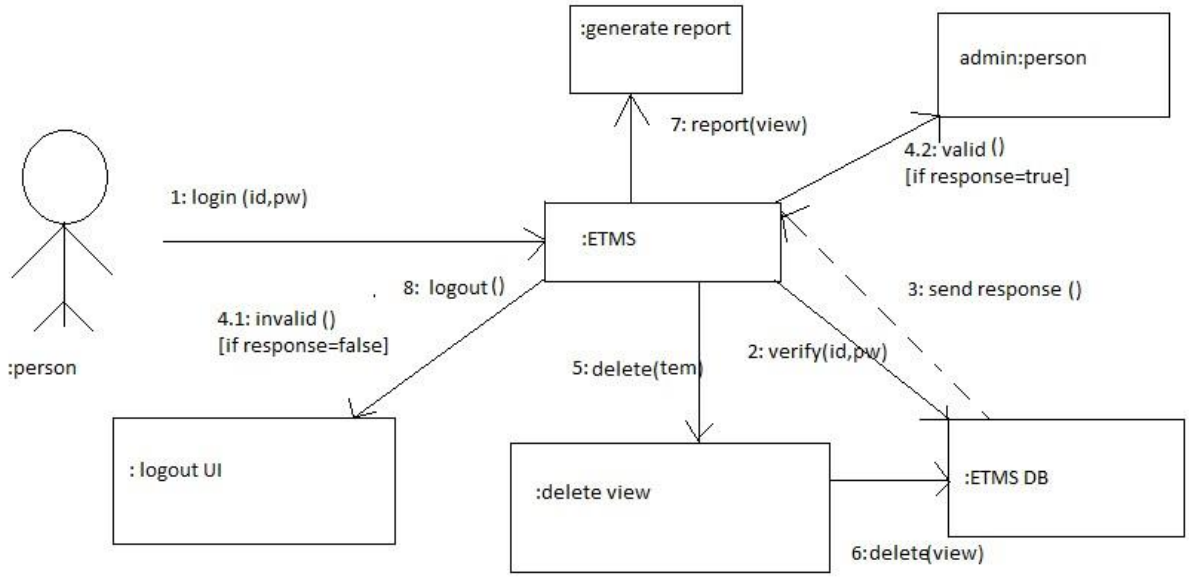
Admin Update Collaboration Diagram



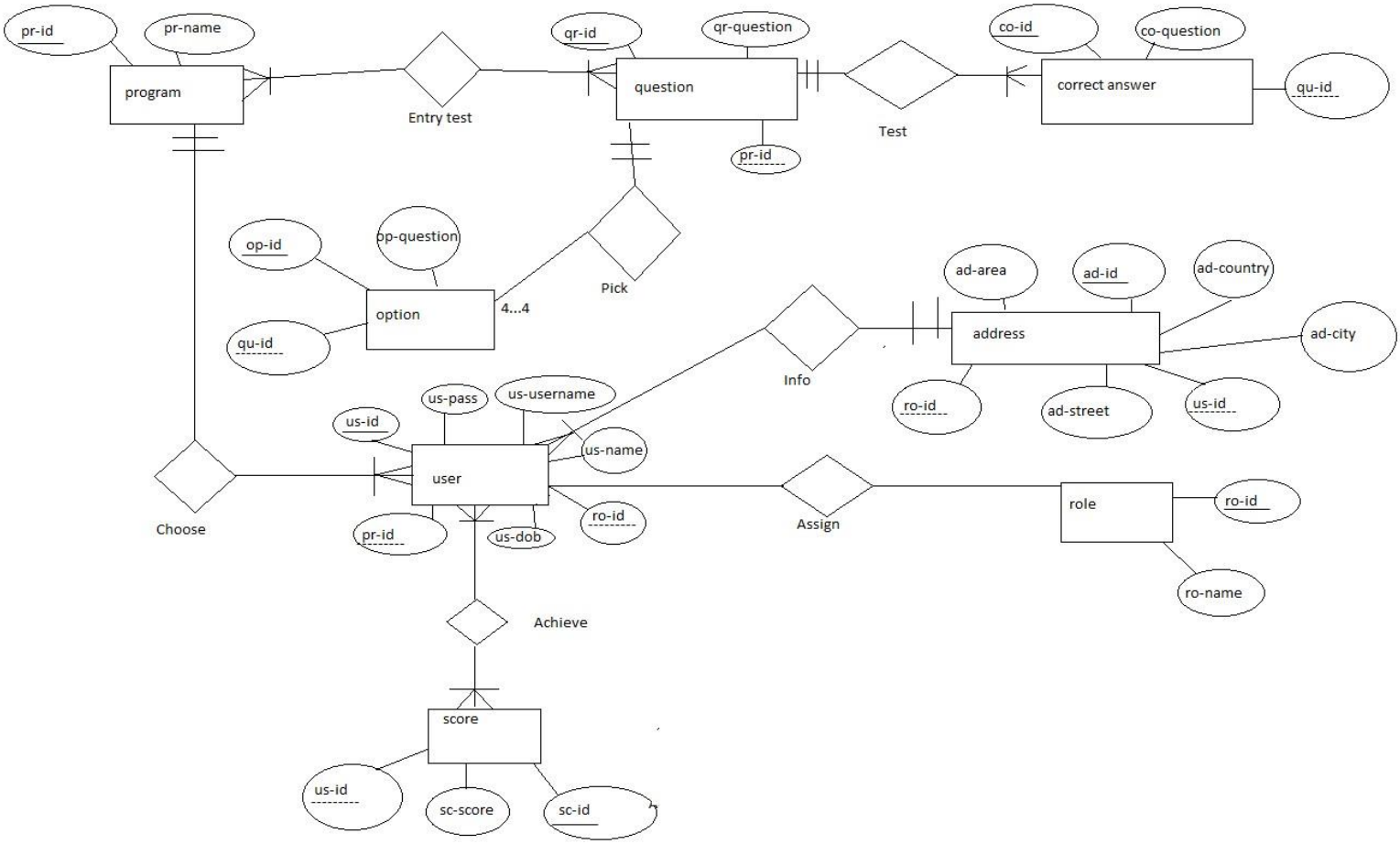
Admin Insert Collaboration Diagram



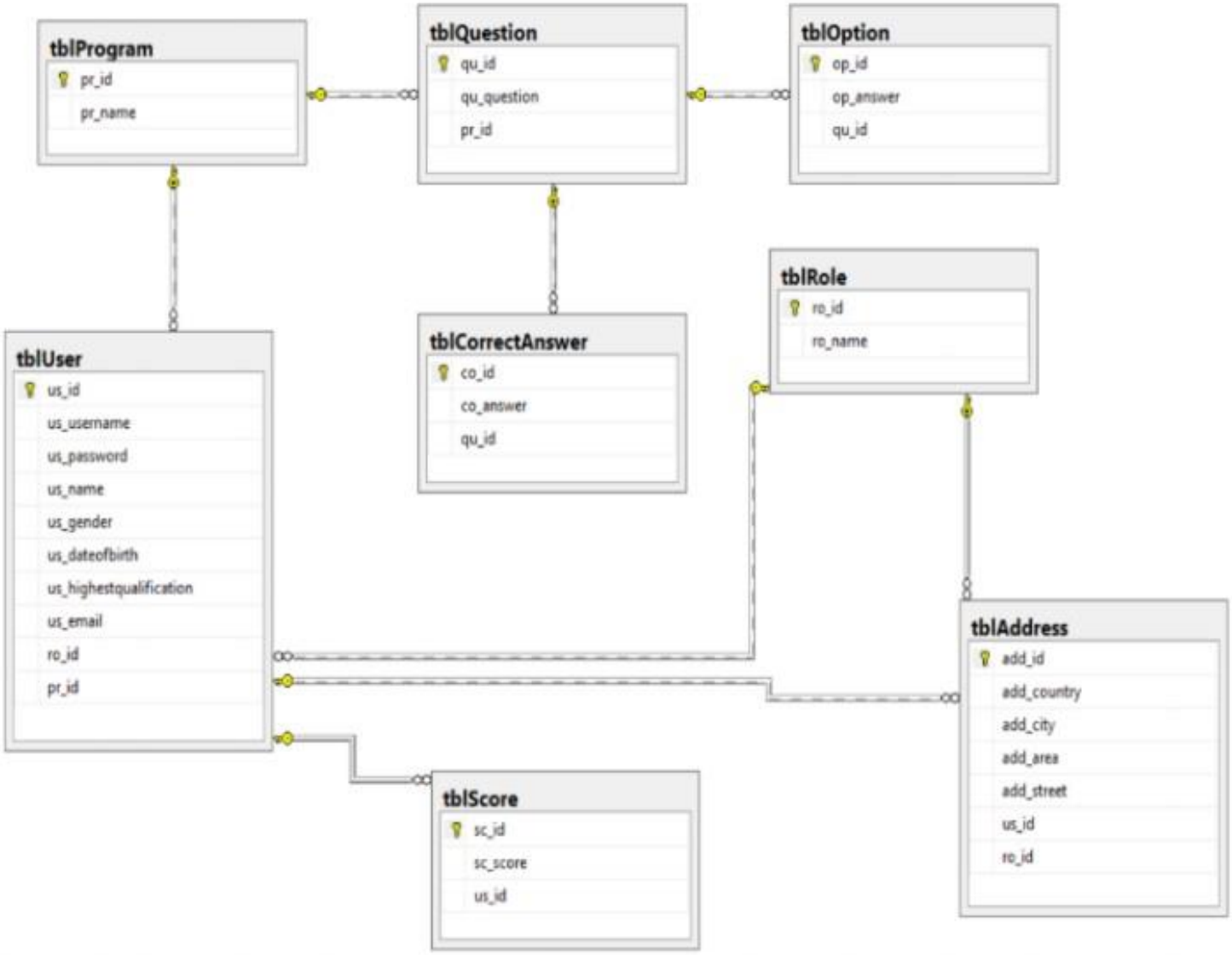
Admin Delete Collaboration Diagram



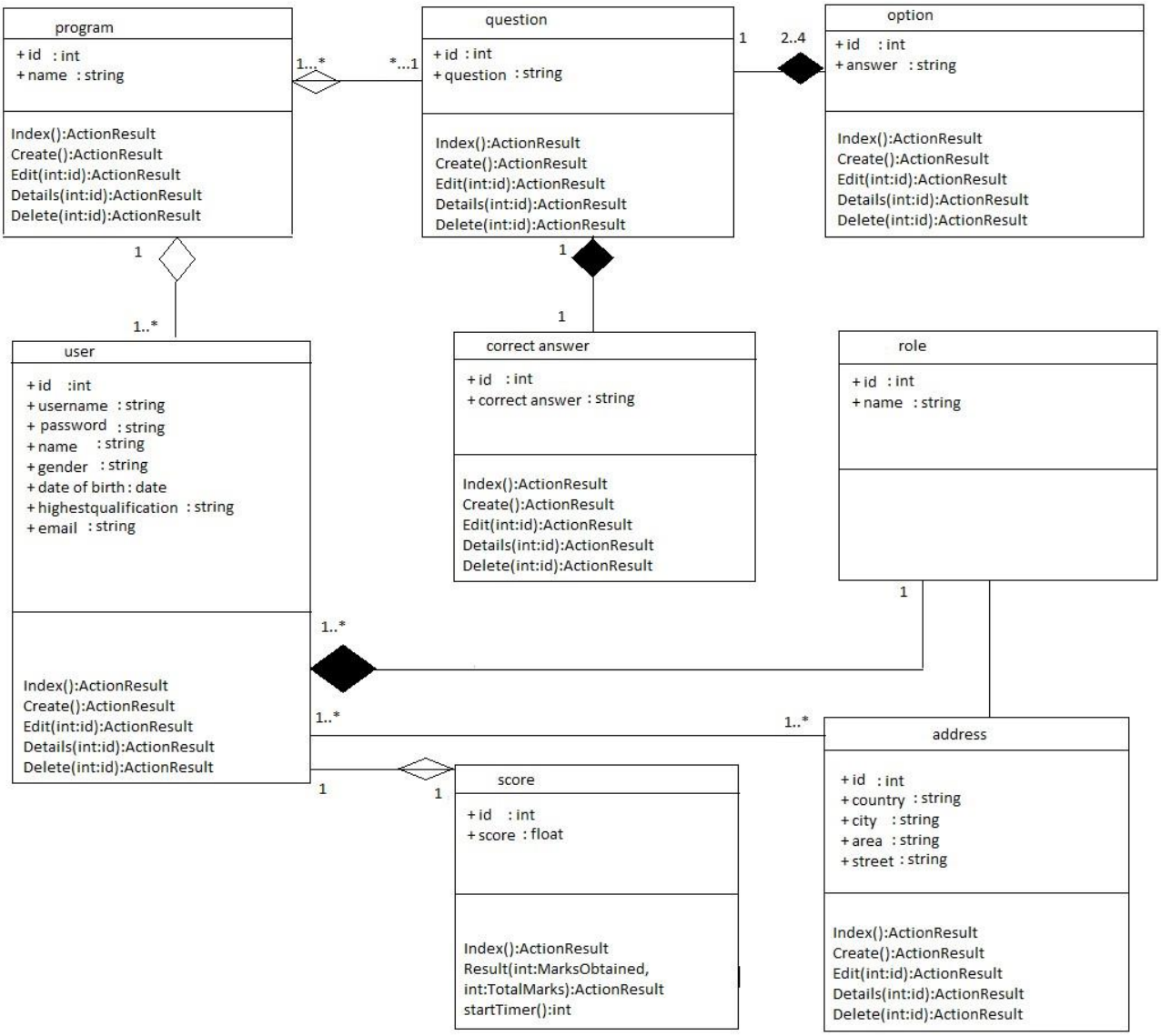
Entity Relationship Diagram (Original)



Entity Relationship Diagram (Enhanced)



Class diagram



Development Process:

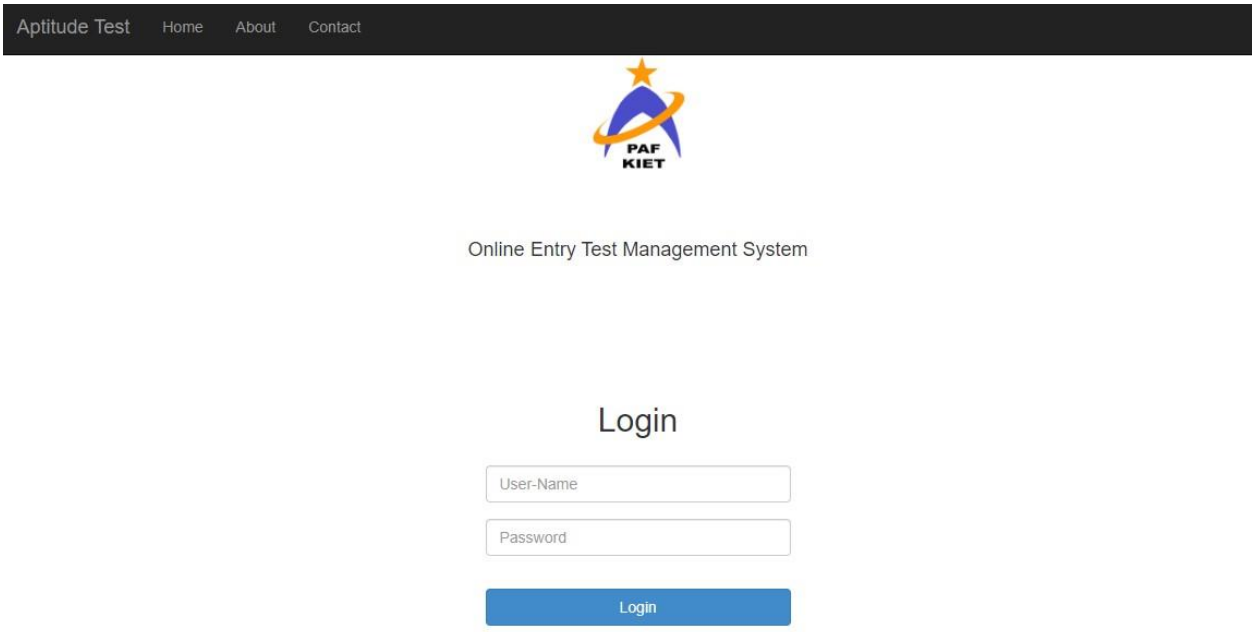
We used Water fall model to develop this web application (Online Entry Test Management System), reverse engineering is not applicable in this model though, but still we made some updates later on to maintain the application or when some bugs were spotted to make this application more stable.

Development Tools:

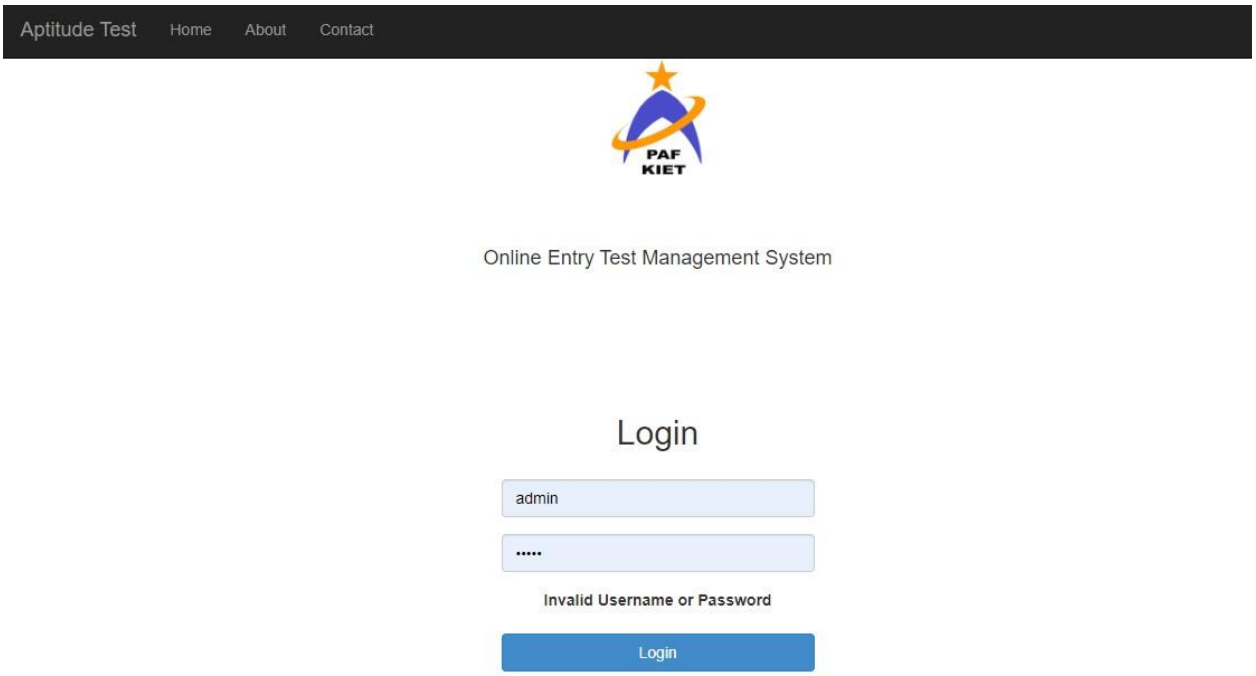
Microsoft word: It is a word processing application used to create documents related to the web application.
Adobe Dreamweaver: Used to design the different views of the web application by using HTML, CSS, and JavaScript.
Microsoft SQL: It was used to create database where all the records could be maintained regarding this web application (Online Entry Test Management System)
Microsoft Visual Studio 2015 (Professional Edition): This web application is created on MVC platform which is supported by C# language and one of the best IDE for this language is Microsoft Visual Studio.

DESIGN AND SCREENSHOTS OF WEB APPLICATION:

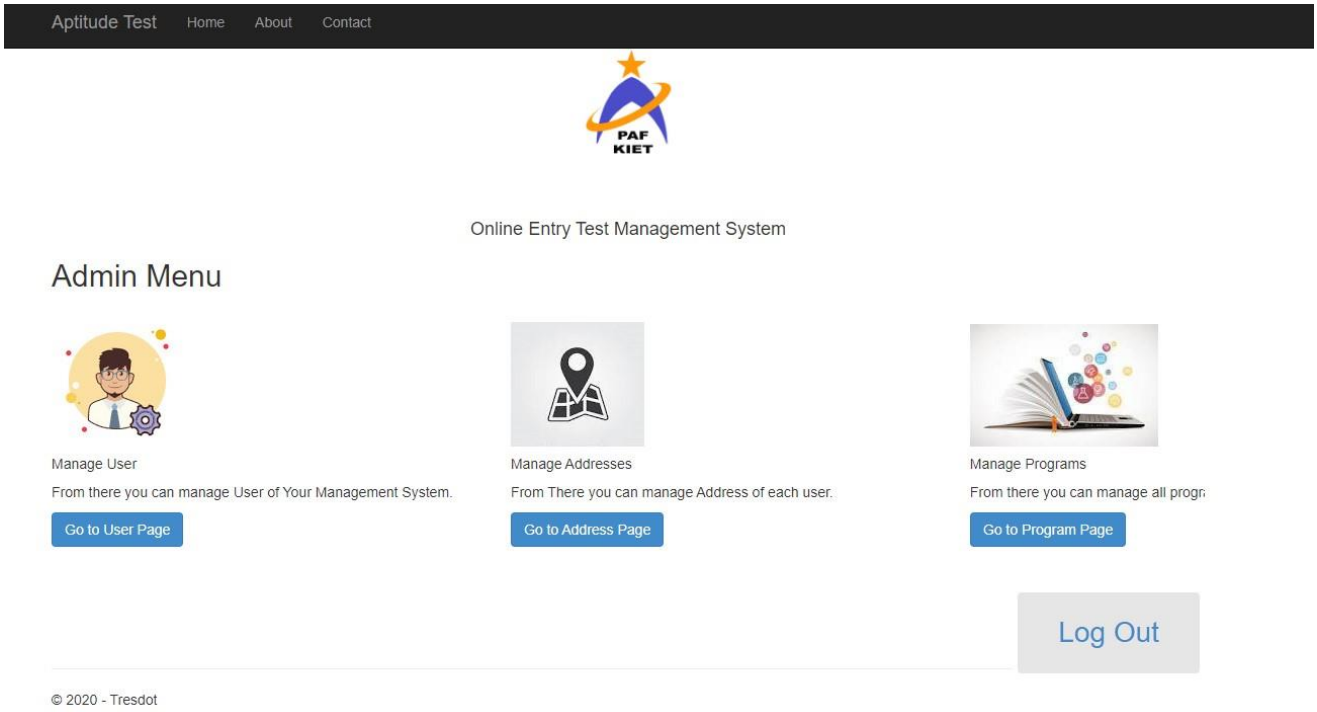
Login Page:



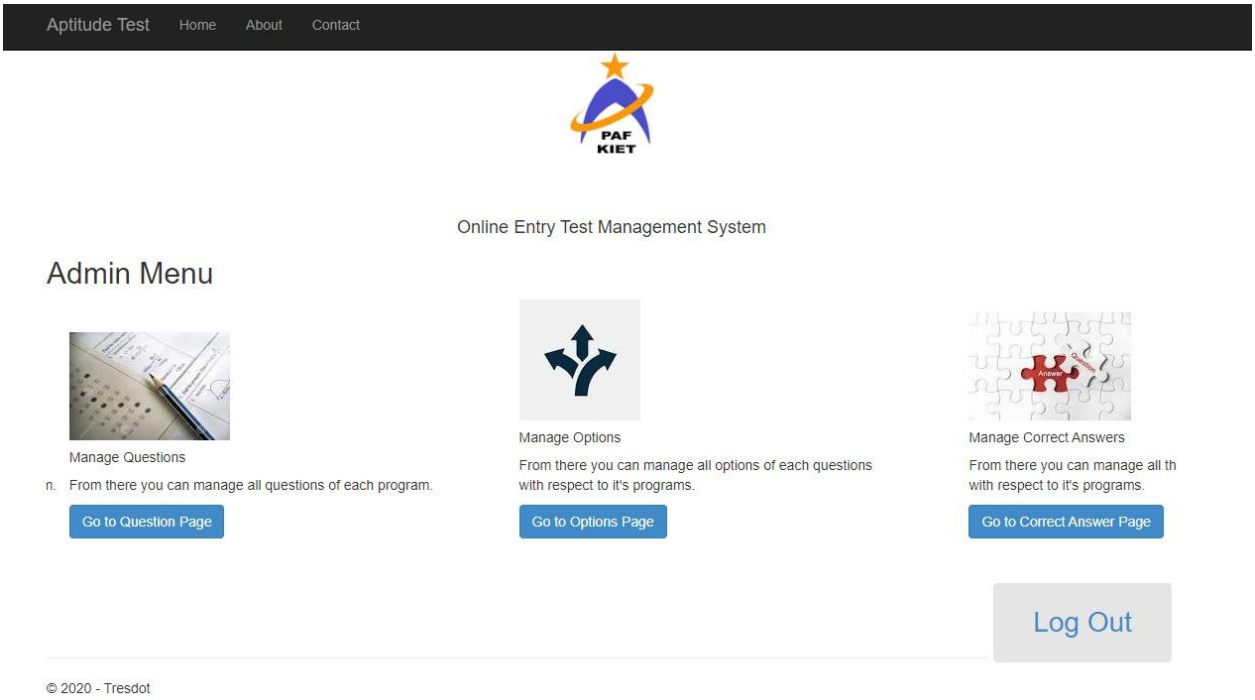
If admin or applicant mistype his/her password the error message will generate



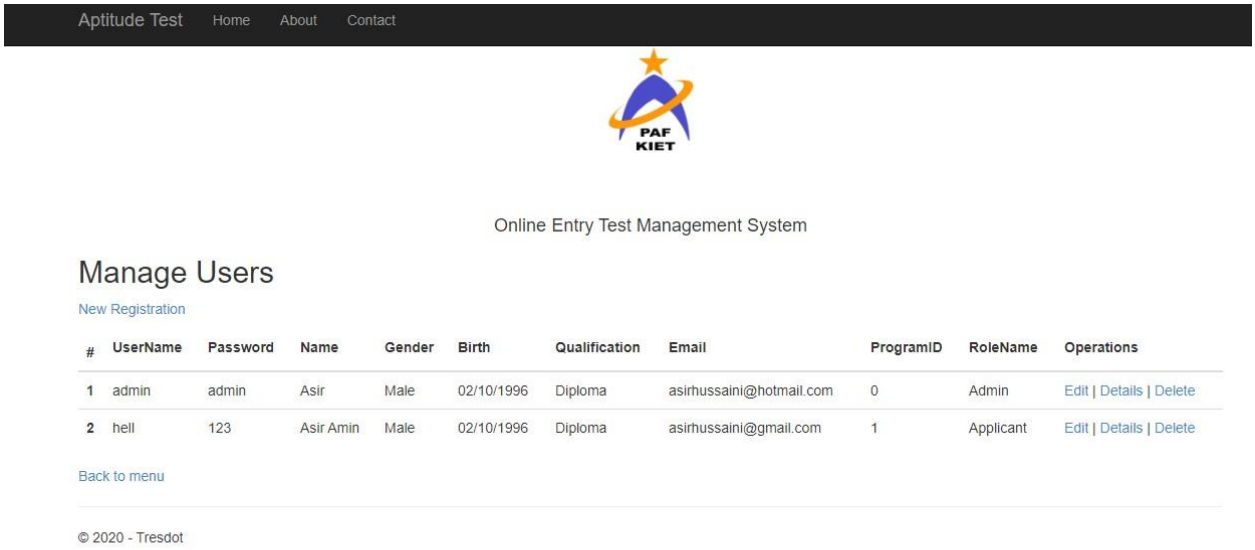
After admin logins, admin menu will be displayed

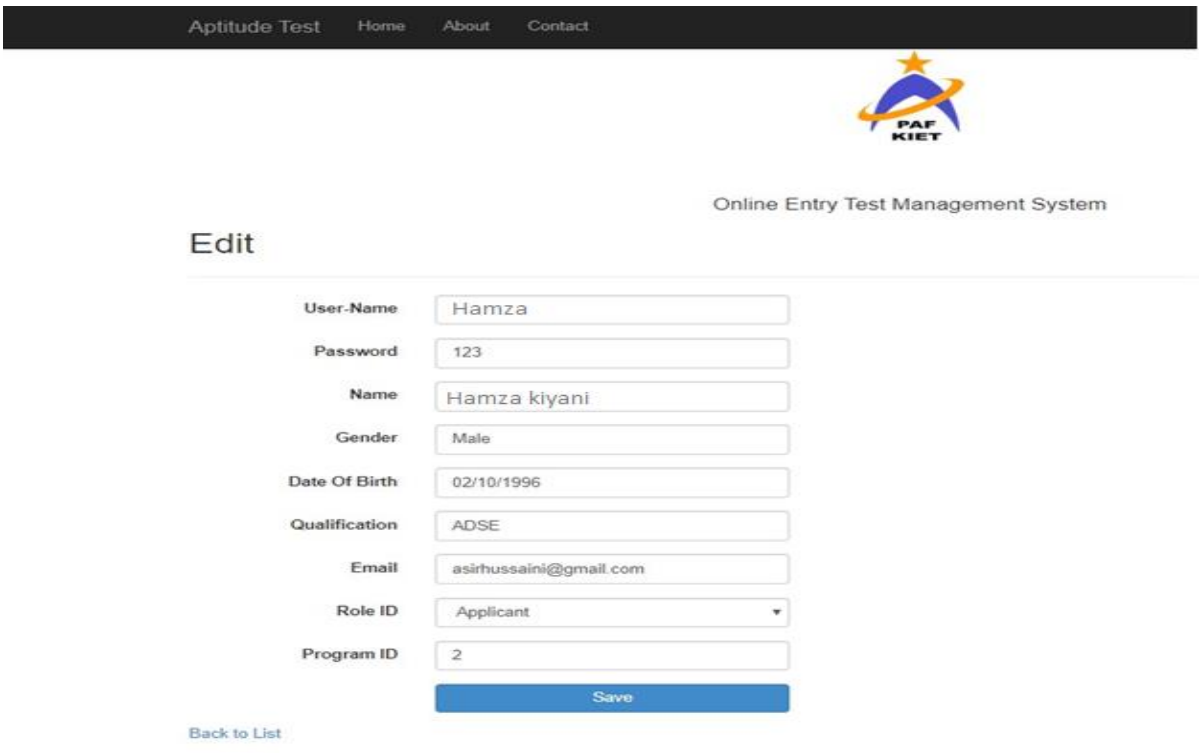


Admin Menu Cont'd



Manage Users Section where admin can View, Insert, Update, Delete any applicant or admin




Aptitude Test
Home
About
Contact
PAF KIET
Online Entry Test Management System
Edit
User-Name
Hamza
Password
123
Name
Hamza kiyani
Gender
Male
Date Of Birth
02/10/1996
Qualification
ADSE
Email
asirhussaini@gmail.com
Role ID
Applicant
Program ID
2
Save
Back to List

Aptitude Test Home About Contact

Online Entry Test Management System

Details

Admin Record

User Name	Hamza
Password	123
Name	Hamza Kiyani
Gender	Male
Date Of Birth	02/10/1996
Qualification	ADSE
Email	asirhussaini@gmail.com
Program ID	2
Program Name	
Role Name	Applicant

Edit | Back to List

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Aptitude Test Home About Contact

Online Entry Test Management System

Delete

Are you sure you want to delete this?

Delete Record

User Name	Hamza
Password	123
Name	Hamza Kiyani
Gender	Male
Date Of Birth	02/10/1996
Qualification	ADSE
Email	asirhussaini@gmail.com
Program ID	2
Program Name	
Role ID	Applicant

Delete

| Back to List

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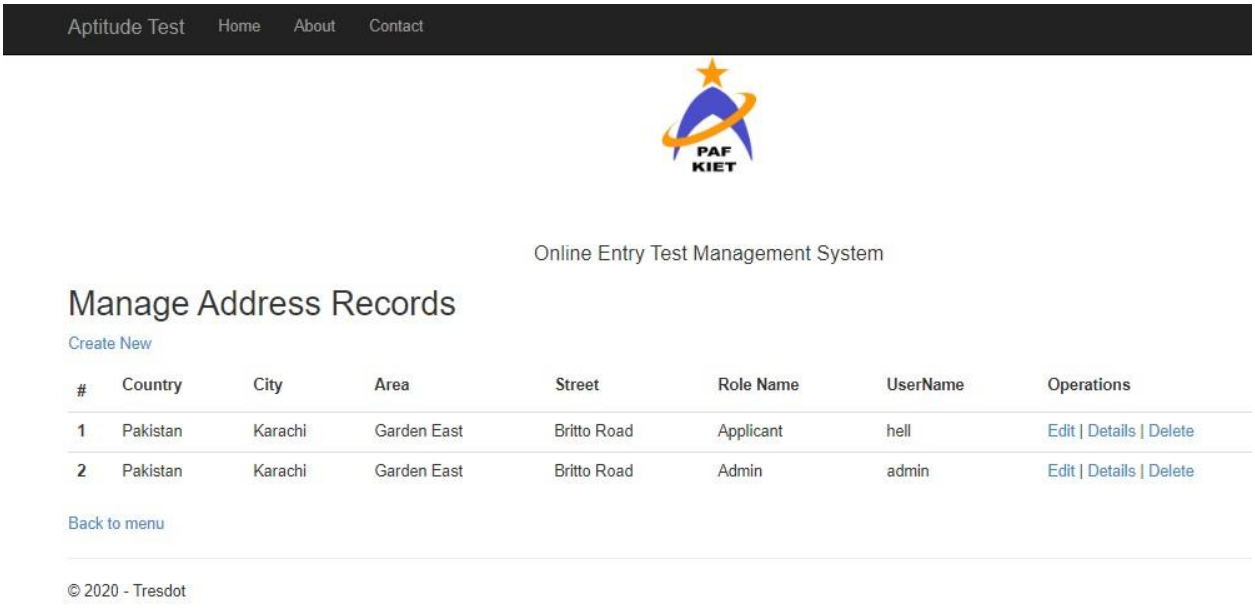
Manage Address Section where admin can View, Insert, Update, Delete any applicant's or admin's address



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Online Entry Test Management System

Record Address

User Address

Country	
City	
Area	
Street	
User-ID	admin
Role-ID	Admin

Create

Back to List

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Online Entry Test Management System

Edit Address

Country	Pakistan
City	Karachi
Area	Garden East
Street	Britto Road
User ID	admin
Role ID	Admin

Save

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Online Entry Test Management System

Delete

Are you sure you want to delete this?

Country	Pakistan
City	Karachi
Area	Garden East
Street	Britto Road
Role Name	Admin
User Name	admin

Delete

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Online Entry Test Management System

Address Details

Country	Pakistan
City	Karachi
Area	Garden East
Street	Britto Road
Role Name	Admin
User Name	admin

Edit | Back to List

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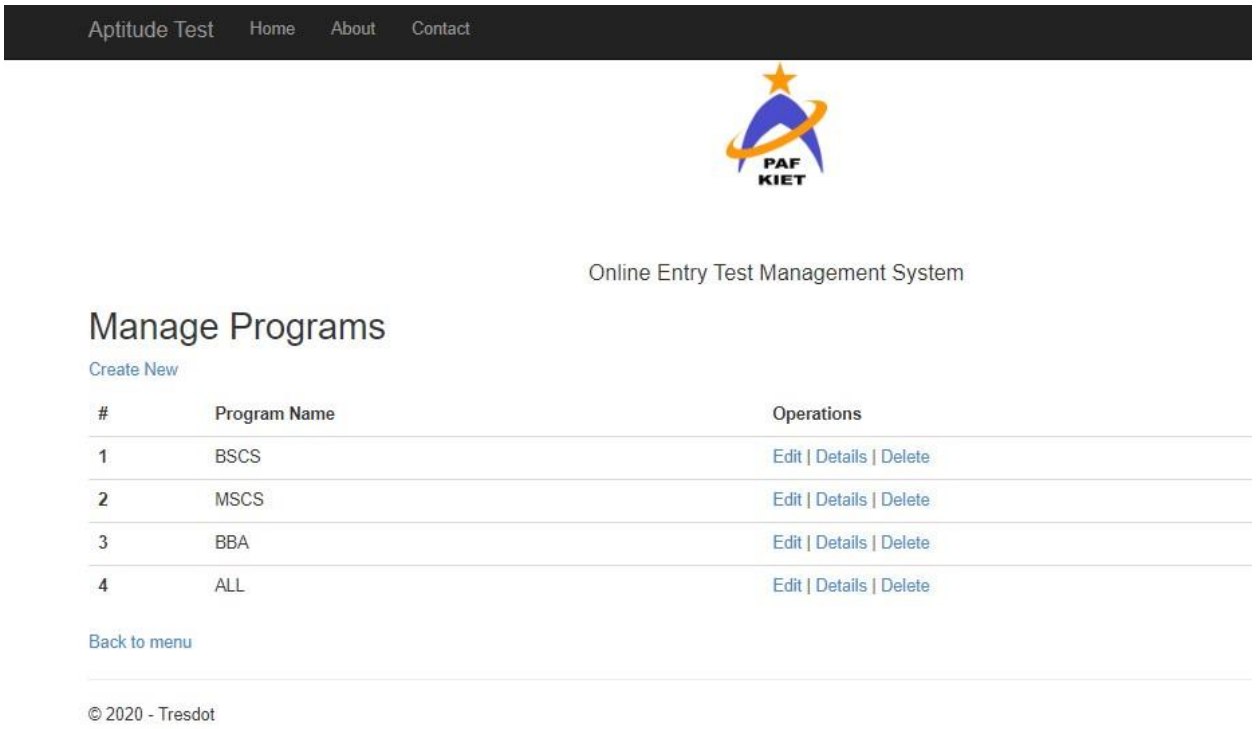
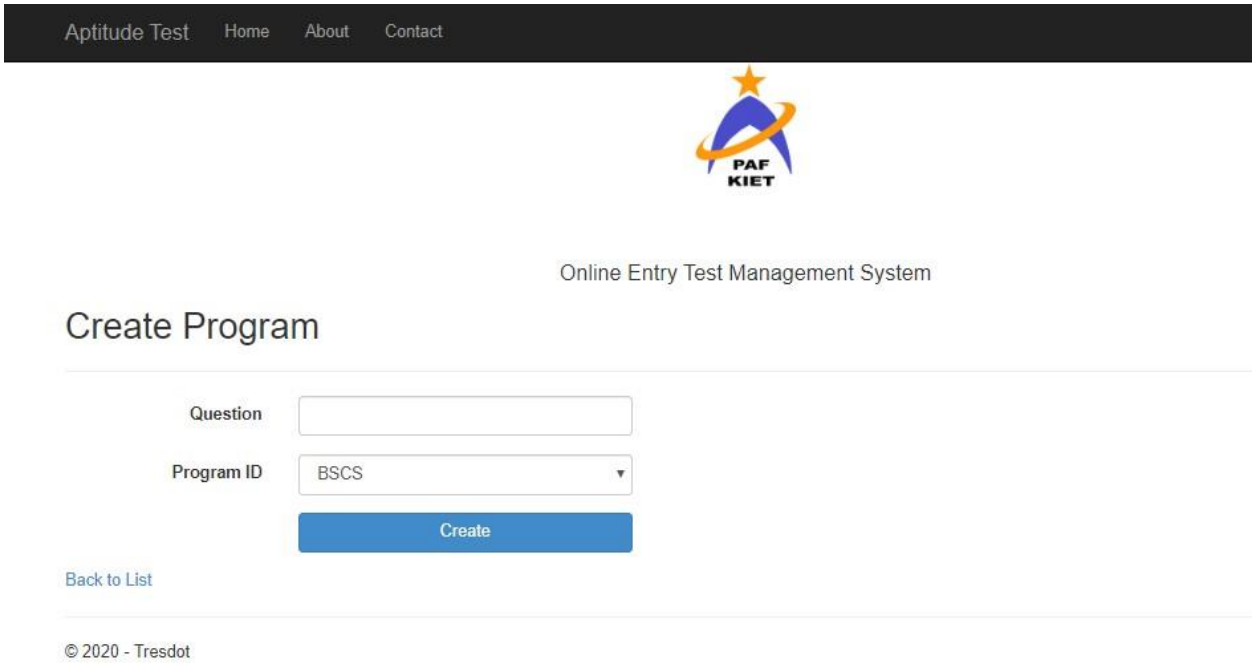
Manage Programs where admin can View, Insert, Update, Delete any Program





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Online Entry Test Management System

Edit Program

Program Name BSCS

Save

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Aptitude Test Home About Contact

Online Entry Test Management System

Program Details

Program Name BSCS

Edit | Back to List

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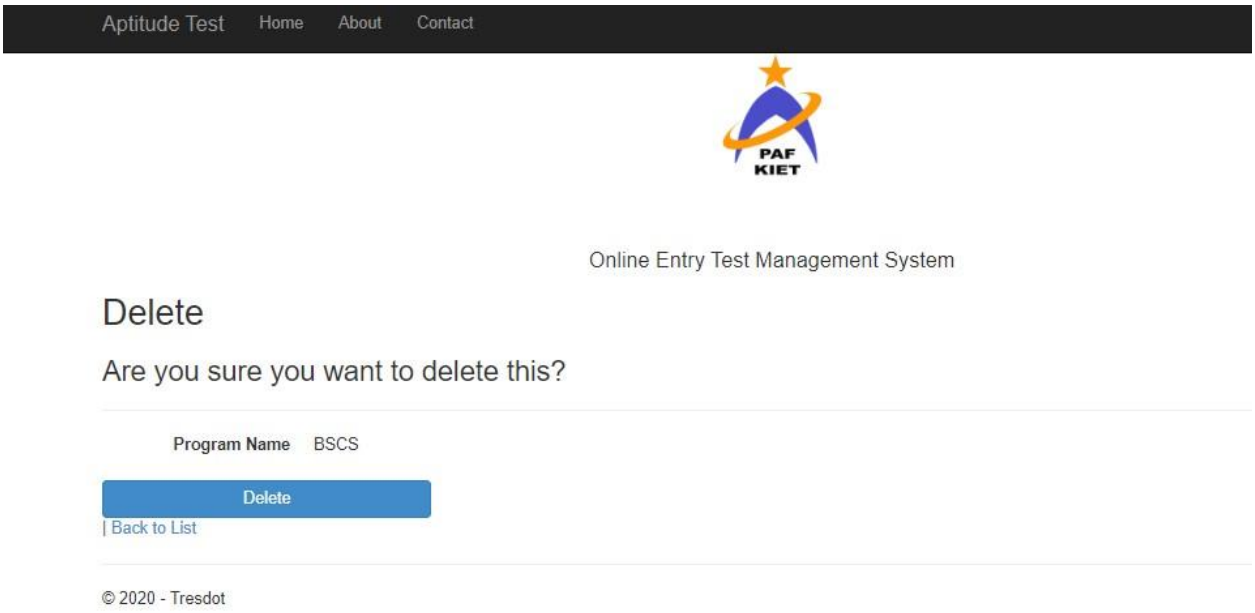
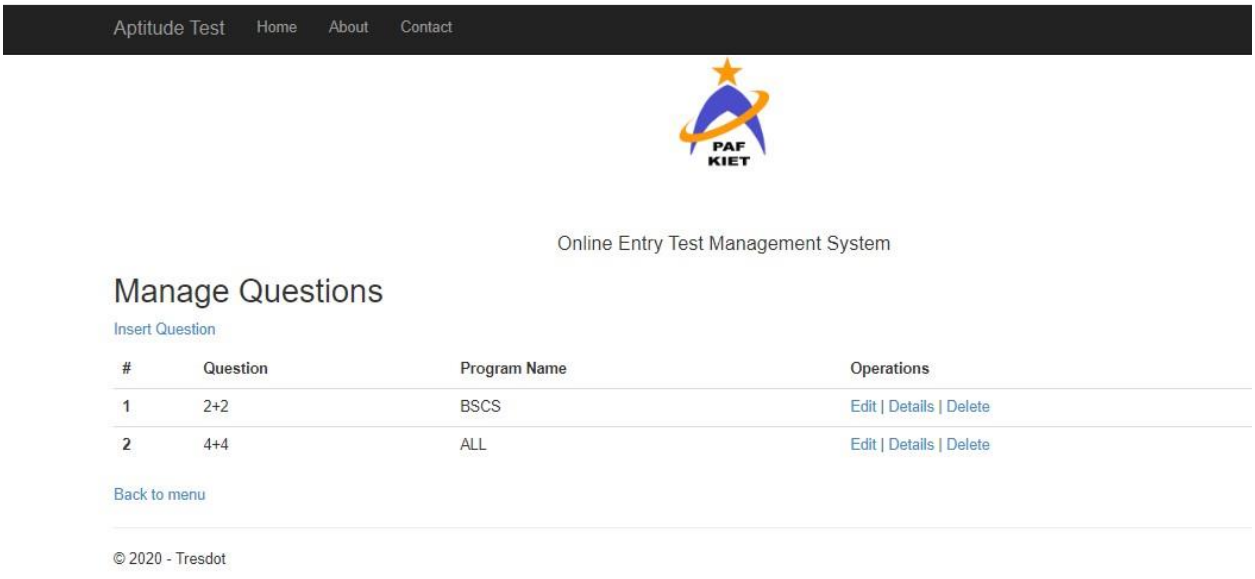


Manage Questions where admin can View, Insert, Update, Delete any Questions



Aptitude Test Home About Contact

Online Entry Test Management System

Create Question

Question

Program ID BSCS

Create

Back to List

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Aptitude Test Home About Contact

Online Entry Test Management System

Edit Question

Question 2+2

Program ID BSCS

Save

Back to List

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Aptitude Test Home About Contact

Online Entry Test Management System

Question Details

Question 2+2
Program Name BSCS

Edit | Back to List

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Aptitude Test Home About Contact

Online Entry Test Management System

Delete

Are you sure you want to delete this?

Question 2+2
Program Name BSCS

Delete

| Back to List

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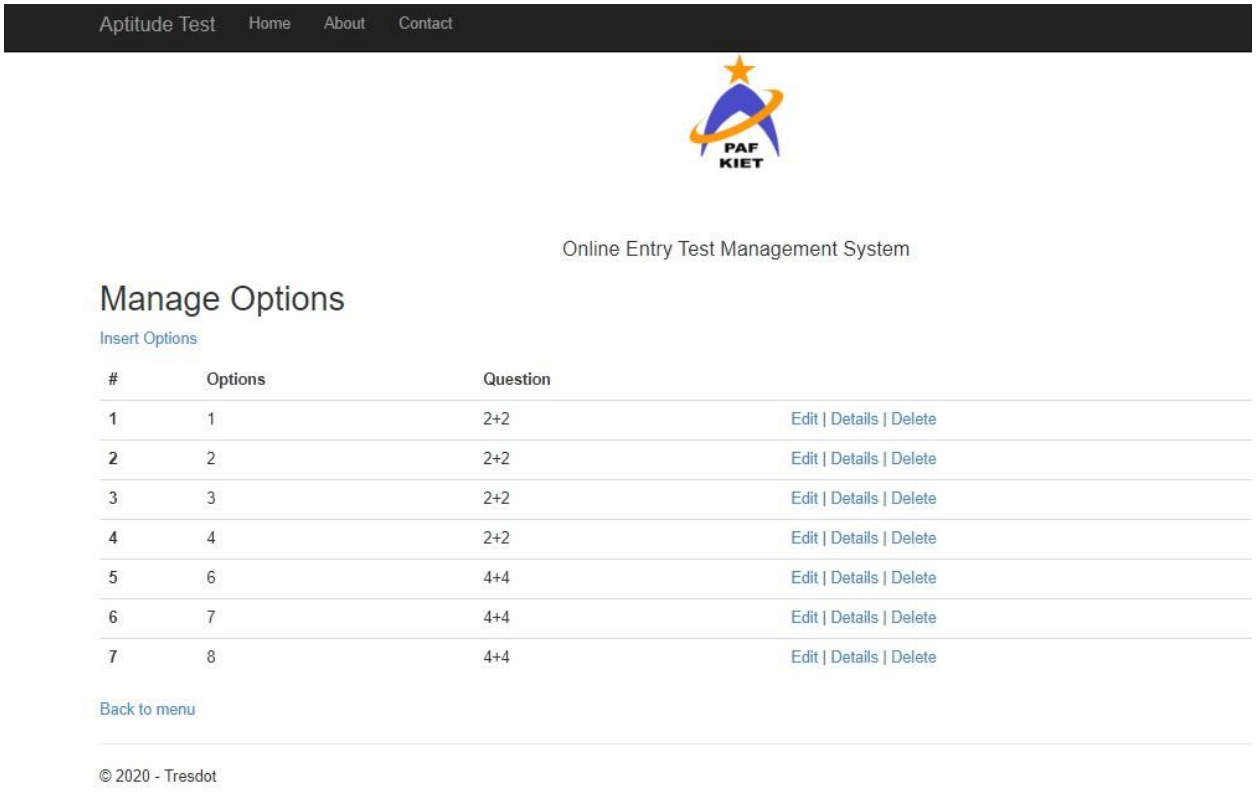
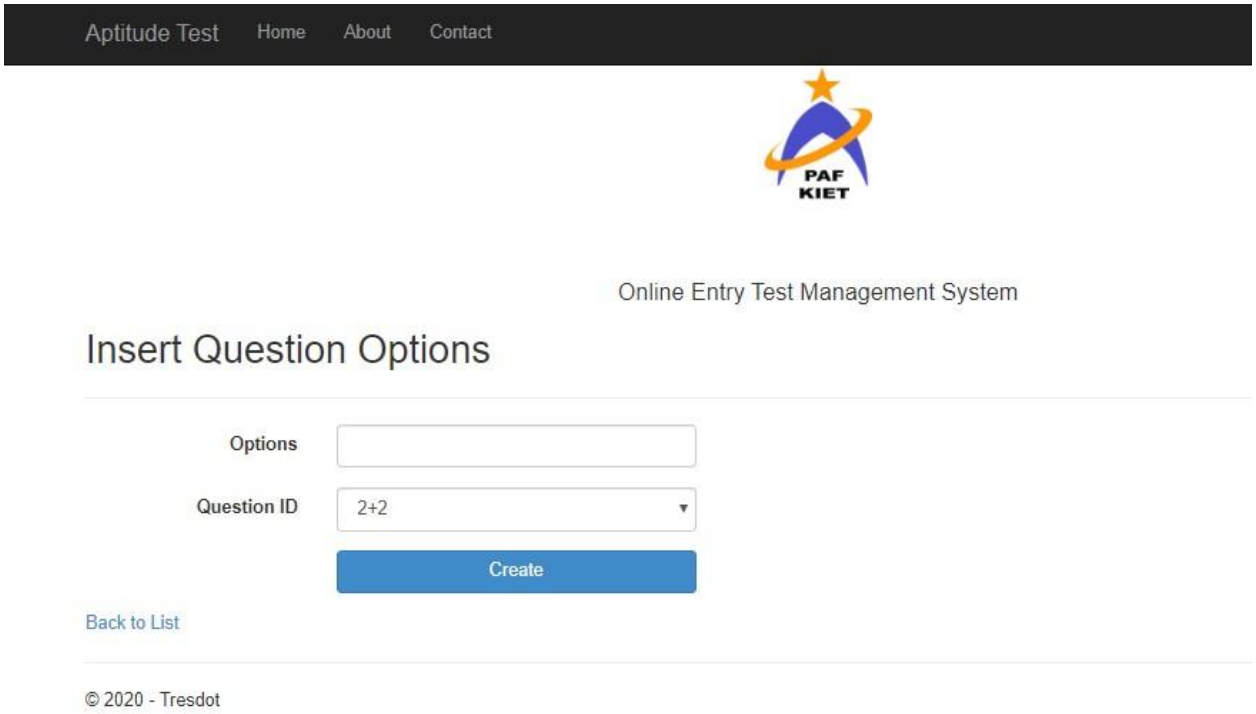
Manage Options where admin can View, Insert, Update, Delete any Options with respect to questions





Aptitude Test Home About Contact

Online Entry Test Management System

Edit

tblOption

op_answer	1
qu_id	2+2

Save

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Aptitude Test Home About Contact

Online Entry Test Management System

Option

Options	1
Question	2+2

Edit | Back to List

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Aptitude Test Home About Contact

Online Entry Test Management System

Delete

Are you sure you want to delete this?

Options	1
Question	2+2

Delete

| Back to List

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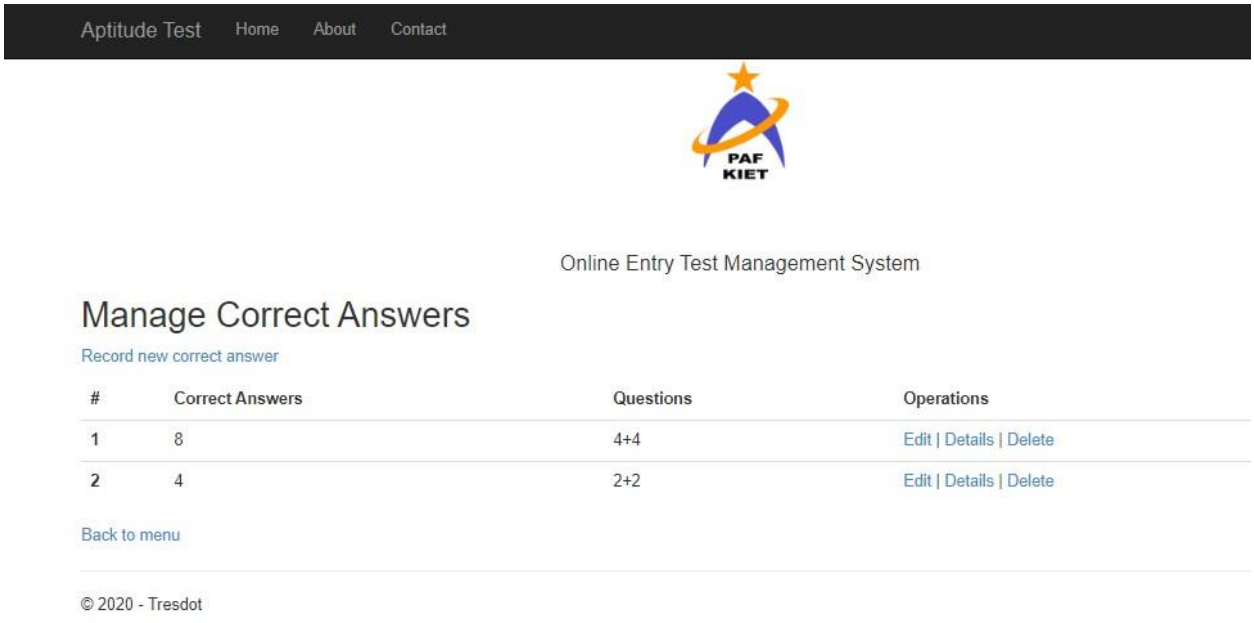
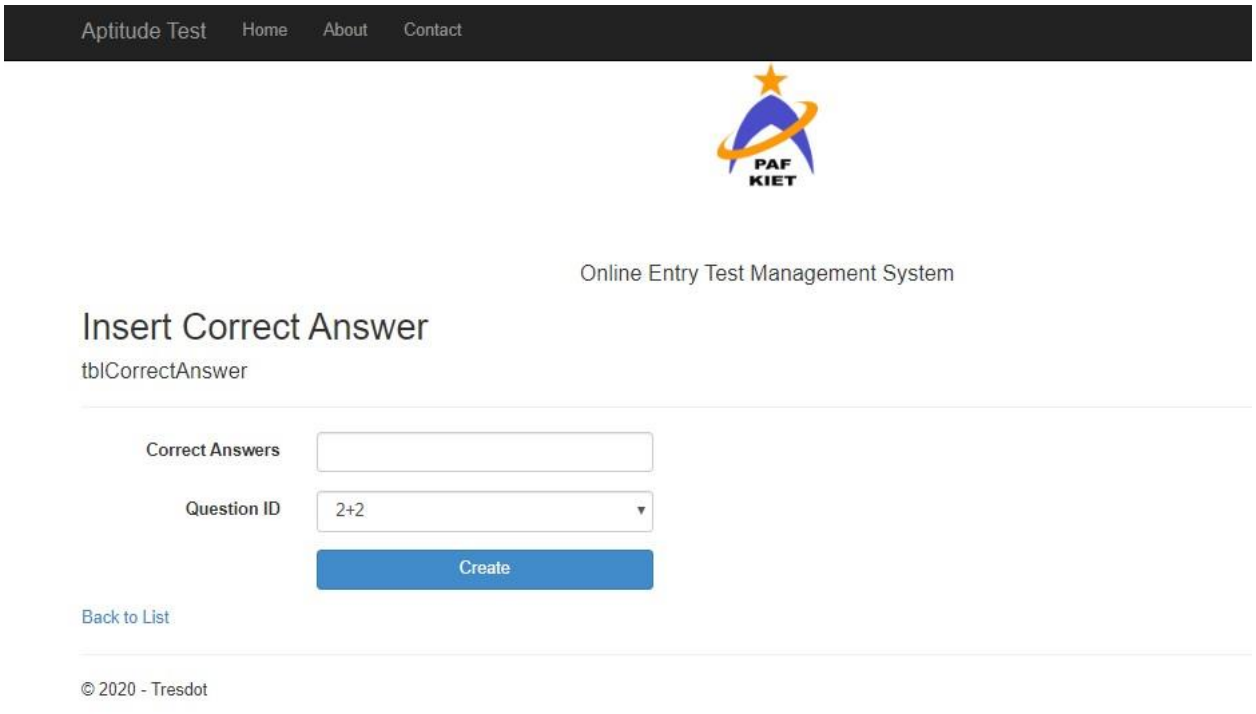
Manage Correct Answers where admin can View, Insert, Update, Delete any Correct Answers with respect to questions





Aptitude Test Home About Contact

Online Entry Test Management System

Edit Correct Answer

Correct Answer: 8

Question ID: 4+4

Save

Back to List

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Aptitude Test Home About Contact

Online Entry Test Management System

Details

Correct Answer 8
Question 4+4

Edit | Back to List

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Online Entry Test Management System

Delete Correct Answer

Are you sure you want to delete this?

Correct Answer	8
Questions	4+4

Delete

| Back to List

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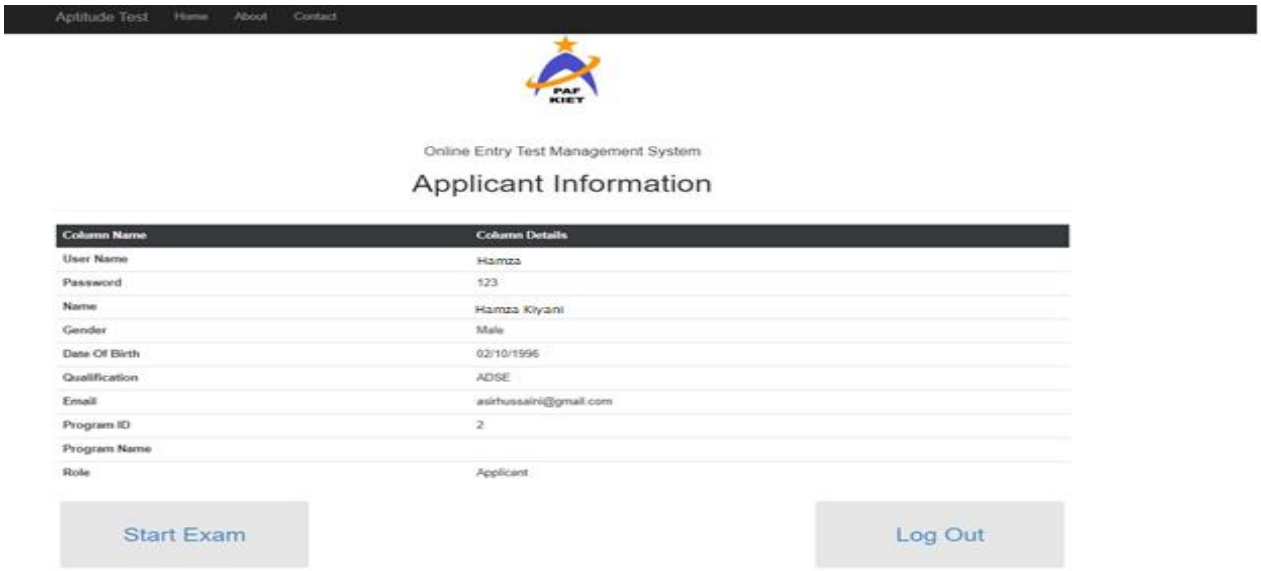
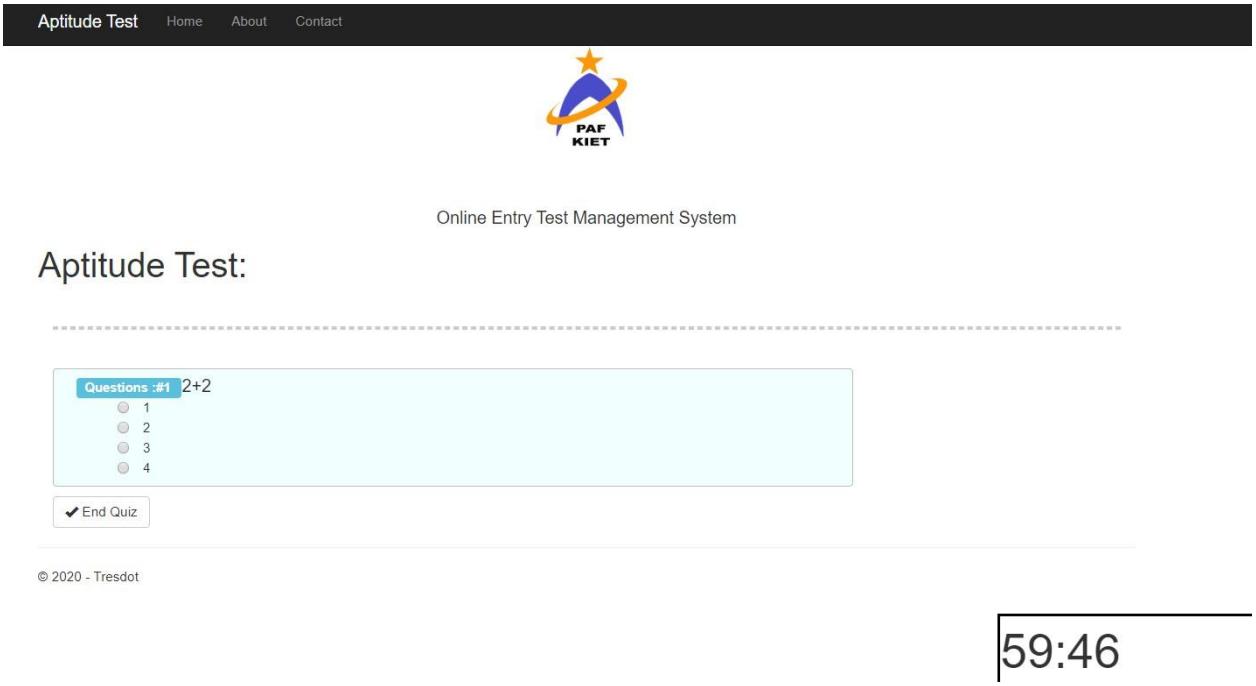
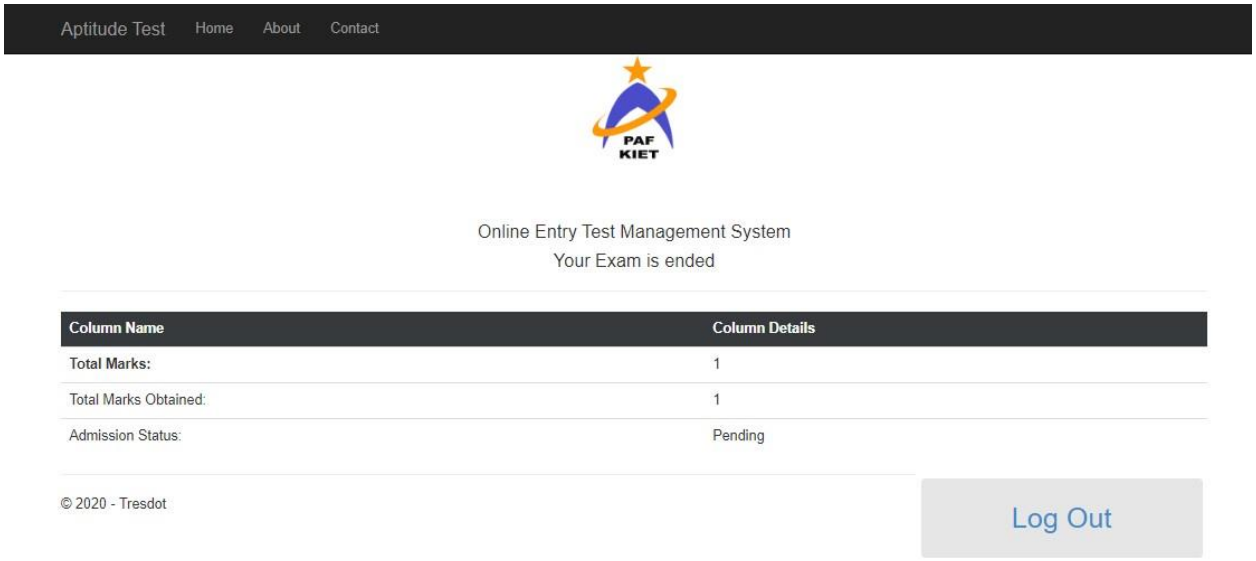
When Applicant will login, the first screen displayed will the one's details to verify the account, where the applicant will also be given the option to start the exam or logout again



When Applicant will hit the "Start Exam" button the Entry Test will begin and the countdown timer of 60 minutes will also start



After ending the exam the applicant will be able to view his/her result finally



Deficiency:

- Timer in exam (Updated)
- Session expiring (Account login and logout)
- Timer Restart

Unit Testing Check List

- Test case for custom expectations.
- Test case for system expectations.
- Test case for IF and ELSE condition.
- Test case for every loop termination.
- Test case for every procedure entry and exit.

System Requirements

- 1 GHz processor
- 512 MB RAM
- 4.5 GB Disk Space

Task Sheet

Project Analysis	Hamza kiyani, M Sawood, M umer
Design	Hamza kiyani, M Sawood, M umer
Database	Hamza kiyani, M Sawood, M umer
Development	Hamza kiyani, M Sawood, M umer
Testing	Hamza kiyani, M Sawood, M umer