

FISAC (mini project): OOP-II [MCA 4221]
Department of Data Science & Computer Applications
MCA-II Semester (Jan-2024)

Problem Statement:

An educational institution aims to streamline its admission entrance test process by automating the creation of Multiple-Choice Questions (MCQs) question papers from a database of questions. Each question paper should contain a minimum of five (which can be user-defined) MCQs, with each MCQ having four options. Students are permitted to choose only one option per question. Upon submission, the system will automatically evaluate the answers, display the student's score on-screen, and store it in the database.

Create a GUI application in Java for conducting an admission entrance test consisting of Multiple-Choice Questions (MCQs) with the following requirements:

1. Login Window:

- The application should open a login window for user authentication.
- Users need to enter their credentials (username and password) for validation.
- After successful login, the application should navigate to a new page.
- This new page should contain a set of multiple-choice questions (MCQs).

2. MCQ Page:

- Display 5 MCQs on this page, each with a question and multiple radio buttons for choosing options.
- Users should be able to select one option per question.
- Provide a "Submit" button for users to submit their answers.

3. Result Display:

After the user has attempted all the questions and submitted their answers, the application should calculate and display the total score and store the same in the database for each student.

Report Content:

1. Title page with student details.
2. Overview: Define the problem statement.
3. Flow diagram
4. Swings Components used
5. Events, action
6. Program code with comments
7. Screenshot of output
8. Reference

Note:

- *The deadline for submitting the assignment is 4pm on April 20, 2024. Details about the submission mode will be provided soon.*
- *FISAC is based on –Self Directed Learning Topics Swings & database programming*
- *In this regard, we recommend you explore the following Coursera courses:*

<https://www.coursera.org/learn/writing-java-code-for-applications/home/info>

<https://www.coursera.org/projects/build-java-gui-apps>