

Task-1

ONLINE EXAMINATION

The project should be capable of the following functionalities.

- Login
 - Update Profile and Password
 - Selecting answers for MCQs
 - Timer and auto submit
 - Closing session and Logout

CODE IN JAVA LANGUAGE

```
import java.util.Scanner;

class User {

    private String username;

    private String password;

    private String profileInfo;

    public User(String username, String password, String profileInfo) {

        this.username = username;

        this.password = password;

        this.profileInfo = profileInfo;

    }

    public String getUsername() {

        return username;

    }

    public boolean authenticate(String inputPassword) {

        return password.equals(inputPassword);

    }

    public void updateProfile(String newProfileInfo) {
```

```

        profileInfo = new ProfileInfo;
    }
}

class MCQExam {
    private String[] questions;
    private String[][] options;
    private int[] correctAnswers;
    private int[] userAnswers;

    public MCQExam(String[] questions, String[][] options, int[]
correctAnswers) {
        this.questions = questions;
        this.options = options;
        this.correctAnswers = correctAnswers;
        this.userAnswers = new int[questions.length];
    }

    public void selectAnswer(int questionIndex, int answerIndex) {
        userAnswers[questionIndex] = answerIndex;
    }

    public int getScore() {
        int score = 0;
        for (int i = 0; i < questions.length; i++) {
            if (userAnswers[i] == correctAnswers[i]) {
                score++;
            }
        }
        return score;
    }
}

```

```

public class OnlineExamSystem {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        // User Registration
        System.out.print("Enter your username: ");
        String username = scanner.nextLine();
        System.out.print("Enter your password: ");
        String password = scanner.nextLine();
        System.out.print("Enter your profile information: ");
        String profileInfo = scanner.nextLine();
        User user = new User(username, password, profileInfo);
        System.out.println("User registered successfully!");
        // User Login
        System.out.print("Enter your username: ");
        String loginUsername = scanner.nextLine();
        System.out.print("Enter your password: ");
        String loginPassword = scanner.nextLine();
        if (user.getUsername().equals(loginUsername) &&
            user.authenticate(loginPassword)) {
            System.out.println("Logged in successfully as " + user.getUsername());
            // Sample exam questions
            String[] questions = {
                "What is the capital of India ?",
                "What is the National game of India?",
                "Who wrote 'Romeo and Juliet'?"
            };
            String[][] options = {
                {"A) Hyderbad", "B) New Delhi ", "C) tamilanadu"},
            };
        }
    }
}

```

```

        {"A) cricket", "B) Hockey", "C) Tennis"},
        {"A) Mark Twain", "B) William Shakespeare", "C) J.K. Rowling"}
    };

    int[] correctAnswers = {1, 1, 1}; // Index of correct options (starting
from 1)

    MCQExam exam = new MCQExam(questions, options,
correctAnswers);

    // Taking the exam
    for (int i = 0; i < questions.length; i++) {
        System.out.println(questions[i]);
        for (String option : options[i]) {
            System.out.println(option);
        }
        System.out.print("Select your answer (0, 1, 2): ");
        int answer = scanner.nextInt();
        exam.selectAnswer(i, answer);
    }

    // Timer and auto-submit (for simplicity, no actual timer implementation)

    System.out.println("Time's up! Your exam has been automatically
submitted.");

    // Display score
    int score = exam.getScore();

    System.out.println("Your score: " + score + " out of " +
questions.length);
} else {
    System.out.println("Invalid credentials. Exiting...");
}

System.out.println("Thank you for using the Online Exam System!");
}

```

}

OUTPUT:-

```
Enter your username: 123
Enter your password: 123
Enter your profile information: SR
User registered successfully!
Enter your username: 123
Enter your password: 123
Logged in successfully as 123
What is the capital of India ?
A) Hyderabad
B) New Delhi
C) tamilanadu
Select your answer (0, 1, 2): 1
What is the National game of India?
A) cricket
B) Hockey
C) Tennis
Select your answer (0, 1, 2): 1
Who wrote 'Romeo and Juliet'?
A) Mark Twain
B) William Shakespeare
C) J.K. Rowling
Select your answer (0, 1, 2): 1
Time's up! Your exam has been automatically submitted.
Your score: 3 out of 3
Thank you for using the Online Exam System!

...Program finished with exit code 0
Press ENTER to exit console.
```