

JAVA PROGRAMMING PROJECT-1

PROJECT OVERVIEW-

The Online Quiz Application is a console-based quiz system. Users will be presented with a series of questions, choose answers, and receive feedback on their performance. The project will cover fundamental concepts such as data structures, user input handling, and conditional statements. Through this, you'll gain valuable experience in Java development.

PROGRAM-

```
import java.util.ArrayList;
```

```
import java.util.Scanner;
```

```
class Question {
```

```
    private String text;
```

```
    private String[] options;
```

```
    private int correctAnswer;
```

```
    public Question(String text, String[] options, int correctAnswer) {
```

```
        this.text = text;
```

```
        this.options = options;
```

```
        this.correctAnswer = correctAnswer;
```

```
    }
```

```
    public String getText() {
```

```
        return text;
```

```
    }
```

```
    public String[] getOptions() {
```

```

        return options;
    }

    public int getCorrectAnswer() {
        return correctAnswer;
    }

    public void displayQuestion() {
        System.out.println(text);
        for (int i = 0; i < options.length; i++) {
            System.out.println((i + 1) + ". " + options[i]);
        }
    }
}

class Quiz {
    private ArrayList<Question> questions;
    private int score;

    public Quiz() {
        questions = new ArrayList<>();
        score = 0;
    }

    public void addQuestion(Question question) {
        questions.add(question);
    }

    public void startQuiz() {

```

```

Scanner scanner = new Scanner(System.in);

for (Question question : questions) {
    question.displayQuestion();
    System.out.print("Your answer: ");
    int answer = scanner.nextInt();

    if (answer == question.getCorrectAnswer()) {
        score++;
    }
}

System.out.println("Your score: " + score + "/" + questions.size());
}
}

public class Main {
    public static void main(String[] args) {
        Quiz quiz = new Quiz();

        String[] options1 = {"Berlin", "Madrid", "Paris", "Rome"};
        Question question1 = new Question("What is the capital of France?", options1, 3);

        String[] options2 = {"Earth", "Mars", "Jupiter", "Saturn"};
        Question question2 = new Question("Which planet is known as the Red Planet?",
options2, 2);

        String[] options3 = {"Shakespeare", "Hemingway", "Tolstoy", "Dostoevsky"};
        Question question3 = new Question("Who wrote 'Hamlet'?", options3, 1);
    }
}

```

```
    quiz.addQuestion(question1);  
    quiz.addQuestion(question2);  
    quiz.addQuestion(question3);  
  
    quiz.startQuiz();  
}  
}
```

OUTPUT-

What is the capital of France?

1. Berlin
2. Madrid
3. Paris
4. Rome

Your answer: 3

Which planet is known as the Red Planet?

1. Earth
2. Mars
3. Jupiter
4. Saturn

Your answer: 2

Who wrote 'Hamlet'?

1. Shakespeare
2. Hemingway
3. Tolstoy
4. Dostoevsky

Your answer: 1

Your score: 3/3