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 void display() {

System.out.println(text);

for (int i = 0; i < options.length; i++) {

System.out.println((i + 1) + ". " + options[i]);

}

}

public boolean isCorrect(int userAnswer) {

return userAnswer == correctAnswer;

}

}

class Quiz {

private ArrayList<Question> questions;

public Quiz() {

this.questions = new ArrayList<>();

}

public void addQuestion(Question question) {

questions.add(question);

}

public int takeQuiz() {

int score = 0;

for (Question question : questions) {

question.display();

int userAnswer = getUserInput();

if (question.isCorrect(userAnswer)) {

score++;

}

}

return score;

}

public int size() {

return questions.size();

}

private static int getUserInput() {

Scanner scanner = new Scanner(System.in);

while (true) {

try {

int userAnswer = Integer.parseInt(scanner.nextLine());

if (userAnswer >= 1 && userAnswer <= 4) {

return userAnswer;

} else {

System.out.println("Invalid input. Please enter a number between 1 and 4.");

}

} catch (NumberFormatException e) {

System.out.println("Invalid input. Please enter a number.");

}

}

}

}

public class Main {

public static void main(String[] args) {

// Create Questions

Question question1 = new Question("What is the capital of France?", new String[]{"Paris", "Berlin", "London", "Rome"}, 1);

Question question2 = new Question("Which planet is known as the Red Planet?", new String[]{"Mars", "Venus", "Jupiter", "Saturn"}, 1);

Question question3 = new Question("What is the largest mammal?", new String[]{"Elephant", "Whale Shark", "Blue Whale", "Giraffe"}, 3);

// Create Quiz

Quiz quiz = new Quiz();

quiz.addQuestion(question1);

quiz.addQuestion(question2);

quiz.addQuestion(question3);

// Take Quiz

int userScore = quiz.takeQuiz();

// Display Score

System.out.println("\nYour score: " + userScore + "/" + quiz.size());

}

}