import java.util.Scanner;

import java.util.Timer;

import java.util.TimerTask;

public class QuizGame {

private static String[] quizQuestions = {

"1. What is the capital of France?",

"2. What is the chemical symbol for water?",

"3. Who wrote 'To Kill a Mockingbird'?"

};

private static String[][] choices = {

{ "A. Berlin", "B. Madrid", "C. Paris", "D. Rome" },

{ "A. H2O", "B. CO2", "C. O2", "D. NaCl" },

{ "A. Harper Lee", "B. J.K. Rowling", "C. Mark Twain", "D. Ernest Hemingway" }

};

private static char[] correctAnswers = { 'C', 'A', 'A' };

private static int currentQuestion = 0;

private static int userScore = 0;

private static boolean isAnswered = false;

public static void main(String[] args) {

Scanner inputScanner = new Scanner(System.in);

System.out.println("\n<---------You have 10 seconds to answer each question.---------->\n");

for (currentQuestion = 0; currentQuestion < quizQuestions.length; currentQuestion++) {

poseQuestion(inputScanner);

}

System.out.println("Quiz has ended.");

displayResults();

inputScanner.close();

}

private static void poseQuestion(Scanner inputScanner) {

System.out.println(quizQuestions[currentQuestion]);

for (String option : choices[currentQuestion]) {

System.out.println(option);

}

isAnswered = false;

Timer questionTimer = new Timer();

questionTimer.schedule(new TimerTask() {

@Override

public void run() {

if (!isAnswered) {

System.out.println("Time's up!");

validateAnswer(' ');

}

}

}, 10000);

String userAnswer = inputScanner.nextLine().toUpperCase();

if (!isAnswered) {

questionTimer.cancel();

validateAnswer(userAnswer.length() > 0 ? userAnswer.charAt(0) : ' ');

}

}

private static void validateAnswer(char userAnswer) {

isAnswered = true;

if (userAnswer == correctAnswers[currentQuestion]) {

userScore++;

}

}

private static void displayResults() {

System.out.println("\nQuiz Complete!");

System.out.println("Your Total Score: " + userScore + "/" + quizQuestions.length);

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

System.out.println(quizQuestions[i] + " - Correct Answer: " + correctAnswers[i]);

}

}

}