

Programming Assignment #3

Trivia Game

Create a program, called Assignment3 that serves as a simple trivia game for two players. The program will work as follows:

- Starting with player 1, each player gets a turn at answering a trivia question. (There are a total of 10 questions, 5 for each player.) When a question is displayed, four possible answers are also displayed. Only one of the answers is correct, and if the player selects the correct answer, he or she earns a point.
- After answers have been selected for all the questions, the program displays the number of points earned by each player and declares the player with the highest number of points the winner.

You are to design a Question class to hold the data for a trivia question. The Question class should have fields for the following data:

- A trivia question
- Number of possible answers
- Array of possible answers (array of strings)
- The number of the correct answer (e.g., 1, 2, 3, or 4)

The Question class should have appropriate constructor(s), accessor, and mutator methods. The Question class should have a static method called createQuestions() that reads question data from a file, creates a Question object for each question in the file, and adds it to an ArrayList. The createQuestions() method take a String as parameter that represents the file name with the questions and returns the ArrayList of Question objects.

The main program should request an ArrayList of Question objects and present 10 of the questions to the players. Create a text file with your own trivia questions on the subject or subjects of your choice for the objects. The questions file format will contain seven lines per question as follows:

- A string containing the trivia question
- An int containing the number of possible answers
- One or more strings each representing a possible answer
- An int pointing to the correct answer (e.g., 1, 2, 3, or 4)

Example:

Who was the first U.S. President?

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Abraham Lincoln

George Washington

Mitt Romney

Benjamin Franklin

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Your program shall look like the following:

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C:\> java Assignment3
Question #1 for Player #1:
What is the largest city in the U.S.?
A) Chicago
B) Los Angeles
C) New York
D) Las Vegas
Your best guess: C
That is correct!

Question #1 for Player #2:
Who played Luke Skywalker in Star Wars IV?
A) Mark Hamill
B) James Earl Jones
C) Harrison Ford
D) Carrie Fisher
Your best guess: D
That is wrong. The correct answer is Mark Hamill

Question #2 for Player #1:
Who shot J.R.?
A) Mark Hamill
B) Kristin Shepard
C) Harrison Ford
D) No one
Your best guess: D
That is wrong. The correct answer is Kristin Shepard

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Question #5 for Player #2:
Who was the 16th President of the U.S.?
A) Thomas Jefferson
B) George Washington
C) Abraham Lincoln
D) Benjamin Franklin
Your best guess: D
That is wrong. The correct answer is Abraham Lincoln

Player #1 wins with 5 points
```

What to turn in

Source code of all classes created.
Screen shot of program running.