

Python Exercise 8

Trivia Game – Questions Class (15 pts)

Trivia Questions (20 pts)

Driver Program (25 pts)

For this assignment, you will create **three** modules that are all related. Instructions for each module are outlined below:

Questions Class (15 pts)

Define a class that has the following attributes:

- A trivia question
- Answer 1
- Answer 2
- Answer 3
- Answer 4
- The number for the correct answer (1, 2, 3 or 4)

The class must have an `__init__` method, but you can create additional accessors, mutators or a `__str__` method as needed.

This module should only contain the class definition (with the appropriate methods for each attributes). Don't forget to run this module to check for errors! (Note: output should not be expected here.)

Trivia Questions (20 pts)

Define a function in this module that creates a list of trivia question objects. This module should **import the module** that contains the class definition for the questions. The function doesn't require any parameters but should return a list of question objects.

The returned list **MUST** contain at least 10 questions. (You are welcome to change the questions provided in the sample, or add additional questions, as long as the total number of questions are even.)

Note: This module should only contain the function definition that generates the list of questions. (No class definition is needed in this module.) Don't forget to run this module to check for errors! (Note: output should not be expected here either.)

Driver Program (25 pts)

Write a program that executes the trivia game based on the list of trivia questions! The game should be played in the following manner:

- This game is played with two players. Starting with player 1, each player gets a turn of answering (at least) 5 trivia questions. (At least 10 questions is required.)
- Each question should be displayed along with 4 possible answers. (Only one of the answers should be correct.)
- The player enters a value 1, 2, 3 or 4 corresponding to their selected answer.
- If the player's answer is correct, that player gets a point.
- After all answers have been selected for all of the questions, the program displays the number of points earned by each player and declares a tie or the player with the highest points as the winner.

This module should import the module used to generate and return a list of trivia questions.

A sample output is shown below. (Remember - You are allowed to change the questions or to add additional questions, but there must be at least 10, and the total number of questions must be even.)

Sample output:

Question for the first player:

How many days are in a lunar year?

1. 354
2. 365
3. 243
4. 379

Enter your solution (a number between 1 and 4): 2

That is incorrect. The correct answer is 1

Question for the second player:

What is the largest planet?

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

Enter your solution (a number between 1 and 4): 2

That is the correct answer.

Question for the first player:

What is the largest kind of whale?

1. Orca whale
2. Humpback whale

3. Beluga whale

4. Blue whale

Enter your solution (a number between 1 and 4): 1

That is incorrect. The correct answer is 4

Question for the second player:

Which dinosaur could fly?

1. Triceratops

2. Tyrannosaurus Rex

3. Pteranodon

4. Diplodocus

Enter your solution (a number between 1 and 4): 3

That is the correct answer.

Question for the first player:

Which of these Winnie the Pooh characters is a donkey?

1. Pooh

2. Eeyore

3. Piglet

4. Kanga

Enter your solution (a number between 1 and 4): 2

That is the correct answer.

Question for the second player:

What is the hottest planet?

1. Mars

2. Pluto

3. Earth

4. Venus

Enter your solution (a number between 1 and 4): 4

That is the correct answer.

Question for the first player:

Which dinosaur had the largest brain compared to body size?

1. Troodon

2. Stegosaurus

3. Ichthyosaurus

4. Gigantoraptor

Enter your solution (a number between 1 and 4): 4

That is incorrect. The correct answer is 1

Question for the second player:

What is the largest type of penguins?

1. Chinstrap penguins

2. Macaroni penguins
3. Emperor penguins
4. White-flippered penguins

Enter your solution (a number between 1 and 4): 3

That is the correct answer.

Question for the first player:

Which children's story character is a monkey?

1. Winnie the Pooh
2. Curious George
3. Horton
4. Goofy

Enter your solution (a number between 1 and 4): 2

That is the correct answer.

Question for the second player:

How long is a year on Mars?

1. 550 Earth days
2. 498 Earth days
3. 126 Earth days
4. 687 Earth days

Enter your solution (a number between 1 and 4): 1

That is incorrect. The correct answer is 4

The first player earned 2 points.

The second player earned 4 points.

The second player wins the game.