

Portfolio Project Report

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Introduction

For this project, I chose to create a text-based trivia game. Originally I intended on making a text based version of the card game UNO but I realized that I was a little in over my head. It sounded like it would be kind of difficult, but I did not consider all the different cards and functions that I would need. The trivia game I have decided to create uses various functions to create a menu, ask the questions, get the answers, ask which quiz you want to take, and a leaderboard for past players.

Design and Implementation

So because I originally started with an UNO game, a lot of the documentation I completed in earlier weeks were for that. I didn't realize I was in over my head until about a week ago so I had to start from scratch. Consequently, I started coding this without and documentation so I spent a lot of time thinking about what I want to include, inputting it, realizing how barren my code was, researching, then changing it up.

I started with creating a function to show the menu for my code. You are first asked to input your name, so the quiz is a little more personalized. Then you are given a welcome message and shown the menu. In the menu you are given the options to select one of two quizzes or to exit the game. I then developed a function where you are

asked which option you would like to select. If you type one then you will start the first quiz, two, then you will start the second quiz, three, then you will exit the game, and if any other thing is input you will be given an error message and you will be taken back to input a valid option.

A second python file was then created for the questions and answers for the quiz. I created a function for the first quiz and the second quiz. First I created global variables within each function for each question. Then I initialized the variable score with the value of zero so everyone will start. You are then asked the questions for the quiz you have selected. If whatever you type for the answer matches what I put to be the correct answer, then you are notified you are correct and given a point. If you get it wrong you are notified you are wrong. The answer is not case sensitive.

After you go through all the questions your score is saved in the variable high_score. A congratulations message is then displayed for completing the quiz and you are told how many points you scored. Both the functions for the quizzes are then imported to the original trivia file where they will be tied to each other. A function for a leaderboard was then created that displays all the past users who have played, and they are sorted. From there you can see where you would rank among the top players.


```
trivia_questions_ans.py - 1-Fundamentals - Visual Studio Code

def gen2_questions_ans():
    # Create a function to start quiz 2 with no arguments.
    # This function is given a global variable to initialize in each function.
    global q1, q2, q3, q4, q5, q6, q7, q8, q9, q10
    score = 0 # Variable to initialize the score to zero at the start of every game

    q1 = input("Question 1. Which is one of two U.S. states does not observe Daylight Saving Time? ")
    if q1.lower() == "alaska" or q1.lower() == "hawaii":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q2 = input("Question 2. Michael Jordan won how many NBA titles with the Chicago Bulls? ")
    if q2.lower() == "6":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q3 = input("Question 3. What color eyes do most humans have? ")
    if q3.lower() == "brown":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q4 = input("Question 4. What is the hardest rock on earth? ")
    if q4.lower() == "diamond":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q5 = input("Question 5. What is the solar system's hottest planet? ")
    if q5.lower() == "venus":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q6 = input("Question 6. What is the fastest-flying bird in the world? ")
    if q6.lower() == "peregrine falcon":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q7 = input("Question 7. Who was the first woman to have four country albums reach No. 1 on the Billboard 200? ")
    if q7.lower() == "carrie underwood":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q8 = input("Question 8. What is illegal for a single lady to do in Florida solely on Sundays? ")
    if q8.lower() == "skydive":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q9 = input("Question 9. Which is the World's Largest Ocean? ")
    if q9.lower() == "pacific":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q10 = input("Question 10. What type of exercise is best for getting the blood flowing? ")
    if q10.lower() == "aerobic":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    high_score = score

    print("\n***Congratulations on finishing the game.***\nYou have scored",
          high_score, "points!")
```

```
trivia_questions_ans.py - 1-Fundamentals - Visual Studio Code

def gen2_questions_ans():
    # Create a function to start quiz 2 with no arguments.
    # This function is given a global variable to initialize in each function.
    global q1, q2, q3, q4, q5, q6, q7, q8, q9, q10
    score = 0 # Variable to initialize the score to zero at the start of every game

    q1 = input("Question 1. Which is one of two U.S. states does not observe Daylight Saving Time? ")
    if q1.lower() == "alaska" or q1.lower() == "hawaii":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q2 = input("Question 2. Michael Jordan won how many NBA titles with the Chicago Bulls? ")
    if q2.lower() == "6":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q3 = input("Question 3. What color eyes do most humans have? ")
    if q3.lower() == "brown":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q4 = input("Question 4. What is the hardest rock on earth? ")
    if q4.lower() == "diamond":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q5 = input("Question 5. What is the solar system's hottest planet? ")
    if q5.lower() == "venus":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q6 = input("Question 6. What is the fastest-flying bird in the world? ")
    if q6.lower() == "peregrine falcon":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q7 = input("Question 7. Who was the first woman to have four country albums reach No. 1 on the Billboard 200? ")
    if q7.lower() == "carrie underwood":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q8 = input("Question 8. What is illegal for a single lady to do in Florida solely on Sundays? ")
    if q8.lower() == "skydive":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q9 = input("Question 9. Which is the World's Largest Ocean? ")
    if q9.lower() == "pacific":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    q10 = input("Question 10. What type of exercise is best for getting the blood flowing? ")
    if q10.lower() == "aerobic":
        print("Correct!")
        score += 1
    else:
        print("Incorrect!")

    high_score = score

    print("\n***Congratulations on finishing the game.***\nYou have scored",
          high_score, "points!")
```

Conclusions

As we near the end of this course, one of the things that I have learned is to really plan out my programs and see if they are feasible in the moment so I don't bite off more than I can chew. I believe that the best features of my program are the ways that the imported programs work with each other and the leaderboards. One of the shortcomings I encountered was importing. I originally had the answers and questions in different files so they would not be so long but I could not figure out how to get all three to work with each other without running into errors. I did this so the codes would not be so long. I found that just using the two made it a lot easier so I had to redo a large portion of my program. Although, I believe that with more practice, this could be a cake walk in the future. In the future, I would like to make it so that the leaderboard updates with your score and insert you where you should belong. This whole project was an eye opener.