Core Python Assessment Test 2

1. Write a program to demonstrate the Quiz Game

Code:

```python
class QuizGame:
    def __init__(self):
        self.questions = {}

    def display_menu(self):
        print("*************Quiz Game Menu**************")
        print("1. Add Question")
        print("2. View Questions")
        print("3. Delete Question")
        print("4. Exit")

    def add_question(self):
        question_text = input("Enter the question: ")
        options = [input(f"Enter option {i + 1}: ") for i in range(2)]
        correct_option = input("Enter the correct option number: ")

        question_id = len(self.questions) + 1
        self.questions[question_id] = {
            'question': question_text,
            'options': options,
            'correct_option': correct_option
        }

        print("Question added successfully!")

    def view_questions(self):
        for question_id, question_details in self.questions.items():
            print(f"\nQuestion {question_id}:")
            print(f"Question: {question_details['question']}")
            print("Options:")
            for i, option in enumerate(question_details['options'], start=1):
```

```python
                print(f"  {i}. {option}")
            print(f"Correct Option: {question_details['correct_option']}")


    def delete_question(self):
        question_id = int(input("Enter the question ID to delete: "))

        if question_id in self.questions:
            del self.questions[question_id]
            print("Question deleted successfully!")
        else:
            print("Invalid question ID. No question found.")

    def save_to_log(self):
        with open('quiz_log.txt', 'a') as log_file:
            log_file.write(json.dumps(self.questions) + '\n')
        print("Log file updated!")

def welcome_screen():
    print("********Welcome to Top Quiz Challenge!********")
    print("Select your role:")
    print("1. Quiz Master")
    print("2. Quiz Cracker")

    role_choice = input("Enter your role (1 or 2): ")
    if role_choice == '1':
        print("Welcome, Quiz Master!")
        return 'Quiz Master'
    elif role_choice == '2':
        print("Welcome, Quiz Cracker!")
        return 'Quiz Cracker'
    else:
        print("Invalid choice. Please enter 1 or 2.")
        return welcome_screen()

def main():
    role = welcome_screen()
    quiz_game = QuizGame()

    while True:
```

```python
        quiz_game.display_menu()
        choice = input("Which operation you want to perform : ")

        if choice == '1':
            quiz_game.add_question()
        elif choice == '2':
            quiz_game.view_questions()
        elif choice == '3':
            quiz_game.delete_question()
        elif choice == '4':
            quiz_game.save_to_log()
            print(f"Exiting the Quiz Game. Goodbye, {role}!")
            break
        else:
            print("Invalid choice. Please enter a number between 1 and 4.")

if __name__ == "__main__":
    main()
```

Output:

```
***************Welcome to Top Quiz Challenge****************!
Select your role:
1. Quiz Master
2. Quiz Cracker
Enter your role (1 or 2): 1
Welcome, Quiz Master!
```

● when user select option 1 then it will display following menu

```
***********Quiz Game Menu******************
1. Add Question
2. View Questions
3. Delete Question
4. Exit
Which operation you want to perform : 1
Enter the question: who is prime minister of india?
Enter option 1:  Rahul gandhi
Enter option 2: Narendra modi
Enter the correct option number: 2
Question added successfully!
```

- Quiz Master can add details as follows:

```
***********Quiz Game Menu*****************
1. Add Question
2. View Questions
3. Delete Question
4. Exit
Which operation you want to perform : 2

Question 1:
Question: who is prime minister of india?
Options:
  1.  Rahul gandhi
  2. Narendra modi
Correct Option: 2

Question 2:
Question: Who developed c language
Options:
  1. Dennis M richie
  2. Andy Rubin
Correct Option: 1
***********Quiz Game Menu*****************
```