CODESOFT Task 5

Code:

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import random


class Quiz:
    def __init__(self, questions):
        self.questions = questions
        self.score = 0

    def display_welcome_message(self):
        print("Welcome to the Quiz Game!")
        print("You will be presented with a series of questions.")
        print("Choose the correct answer for each question.")
        print("Let's begin!\n")

    def present_quiz_questions(self):
        random.shuffle(self.questions)
        for idx, question in enumerate(self.questions, start=1):
            print(f"Question {idx}: {question['text']}")
            if 'choices' in question:
                for choice_idx, choice in enumerate(question['choices'], start=1):
                    print(f"{choice_idx}. {choice}")
            user_answer = input("Your answer: ").strip().lower()
            self.evaluate_user_answer(question, user_answer)
            print()

    def evaluate_user_answer(self, question, user_answer):
        if 'answer' in question:
            correct_answer = question['answer'].lower()
            if user_answer == correct_answer:
                print("Correct!")
                self.score += 1
            else:
                print("Incorrect.")
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            print(f"The correct answer is: {correct_answer}")
        elif 'fill_in_blank' in question:
            correct_answer = question['fill_in_blank'].lower()
            if user_answer == correct_answer:
                print("Correct!")
                self.score += 1
            else:
                print("Incorrect.")
                print(f"The correct answer is: {correct_answer}")

    def display_final_results(self):
        total_questions = len(self.questions)
        print(f"\nQuiz completed! Your final score is: {self.score}/{total_questions}")
        percentage = (self.score / total_questions) * 100
        if percentage >= 70:
            print("Congratulations! You passed the quiz!")
        else:
            print("Sorry, you did not pass the quiz. Better luck next time!")

    def play_again(self):
        answer = input("Do you want to play again? (yes/no): ").strip().lower()
        return answer == 'yes'


# Sample quiz questions
questions = [
    {
        'text': 'What is the capital of India?',
        'choices': ['A. Tamilnadu', 'B. Delhi', 'C. Mumbai'],
        'answer': 'B'
    },
    {
        'text': 'Who wrote "Romeo and Juliet"?',
        'fill_in_blank': 'Shakespeare'
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    },
    {
        'text': 'Which planet is known as the Red Planet?',
        'choices': ['A. Venus', 'B. Mars', 'C. Jupiter'],
        'answer': 'B'
    }
]

def main():
    while True:
        quiz = Quiz(questions)
        quiz.display_welcome_message()
        quiz.present_quiz_questions()
        quiz.display_final_results()
        if not quiz.play_again():
            print("Thank you for playing!")
            break

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