

TASK-03

1) Develop a simple quiz application using Python that allows users to answer a series of questions. The application should provide feedback on correct and incorrect answers, keep track of the score, and present a final score at the end.

CODE:

```
class QuizApp:
    def __init__(self):
        self.questions = []
        self.score = 0

    def add_question(self, question, options, correct_option):
        self.questions.append({
            "question": question,
            "options": options,
            "correct_option": correct_option
        })

    def start_quiz(self):
        print("Welcome to the Quiz Application!\n")
        for i, q in enumerate(self.questions):
            print(f"Question {i + 1}: {q['question']}")
            for j, option in enumerate(q['options'], start=1):
                print(f"    {j}. {option}")

            while True:
                try:
                    user_answer = int(input("Enter your choice (1/2/3/4): "))
                    if user_answer < 1 or user_answer > len(q['options']):
                        raise ValueError
                    break
                except ValueError:
                    print("Invalid input. Please enter a number between 1 and 4.")

            if user_answer == q['correct_option']:
                print("Correct!\n")
                self.score += 1
            else:
                print(f"Wrong! The correct answer was: {q['options'][q['correct_option'] - 1]}\n")
```

```

        self.show_final_score()

    def show_final_score(self):
        print("Quiz Completed!\n")
        print(f"Your final score is {self.score}/{len(self.questions)}")
        if self.score == len(self.questions):
            print("Excellent work!")
        elif self.score >= len(self.questions) // 2:
            print("Good effort! Keep practicing.")
        else:
            print("Better luck next time!")

if __name__ == "__main__":
    quiz = QuizApp()

    # Example questions
    quiz.add_question(
        "What is the capital of France?",
        ["Paris", "London", "Berlin", "Madrid"],
        1
    )
    quiz.add_question(
        "Which planet is known as the Red Planet?",
        ["Earth", "Mars", "Jupiter", "Venus"],
        2
    )
    quiz.add_question(
        "What is 5 + 7?",
        ["10", "11", "12", "13"],
        3
    )

    quiz.start_quiz()

```

OUTPUT:

```

PS C:\Users\ynksh\OneDrive\Desktop\python home> & "C:/Program Files/Python313/python.exe" "c:/Users/ynksh/OneDrive/Desktop/python home/tsak3.py"
Welcome to the Quiz Application!

Question 1: What is the capital of France?
1. Paris
2. London
3. Berlin
4. Madrid
Enter your choice (1/2/3/4): 3
Wrong! The correct answer was: Paris

Question 2: Which planet is known as the Red Planet?
1. Earth
2. Mars
3. Jupiter
4. Venus
Enter your choice (1/2/3/4): 1
Wrong! The correct answer was: Mars

```