**LEVEL-1**

**Develop a console-based quiz application that asks users multiple-choice questions and calculates their score at the end using python**

class Question:

def \_\_init\_\_(self, question\_text, options, correct\_answer):

self.question\_text = question\_text

self.options = options

self.correct\_answer = correct\_answer # index of the correct answer (0-based)

class Quiz:

def \_\_init\_\_(self):

self.questions = []

self.score = 0

def add\_question(self, question):

self.questions.append(question)

def start(self):

for question in self.questions:

print(question.question\_text)

for i, option in enumerate(question.options, 1):

print(f"{i}. {option}")

try:

user\_answer = int(input("Enter your choice (1-4): ")) - 1

if user\_answer == question.correct\_answer:

print("Correct!\n")

self.score += 1

else:

print(f"Wrong. The correct answer was: {question.options[question.correct\_answer]}\n")

except ValueError:

print("Invalid input. Please enter a number.\n")

print("-----------------------------")

self.display\_score()

def display\_score(self):

print("Quiz Over!")

print(f"Your score: {self.score} out of {len(self.questions)}")

# Creating the quiz and adding questions

quiz = Quiz()

quiz.add\_question(Question("What is the capital of France?", ["Berlin", "Madrid", "Paris", "Rome"], 2))

quiz.add\_question(Question("Which planet is known as the Red Planet?", ["Earth", "Mars", "Jupiter", "Saturn"], 1))

quiz.add\_question(Question("Who wrote 'To Kill a Mockingbird'?", ["Harper Lee", "Mark Twain", "Ernest Hemingway", "Jane Austen"], 0))

quiz.add\_question(Question("What is the largest ocean on Earth?", ["Atlantic", "Indian", "Arctic", "Pacific"], 3))

# Start the quiz

quiz.start()