

Week 3 Project

Project 1: Quiz Game

Problem Statement:

Create a Python program for a simple quiz game that tests the user's knowledge of various topics. The quiz should include questions from different categories. Each question should have multiple-choice options, and the user must select the correct option. The program should shuffle the questions to make the quiz more dynamic. After completing the quiz, the user should receive a score based on the number of correct answers.

Requirements:

Create a function `ask_question` that takes a question, a list of options, and the correct option. It should prompt the user for input, compare it with the correct option, and return a score.

Create a function `quiz` that contains a list of dictionaries, each representing a question with options and the correct answer. The function should shuffle the questions and iterate through them using the `ask_question` function.

Display the user's final score at the end of the quiz.

Project 2: Todo List Manager

Problem Statement:

Develop a simple todo list manager in Python. The program should allow users to view their current todo list, add new todos, mark todos as completed, and remove todos from the list. The todo list should be stored in a Python list. The program should display a menu for users to choose the operation they want to perform.

Requirements:

Create a function `display_menu` that prints a menu for the todo list manager with options to view the list, add todos, mark todos as completed, remove todos, and quit.

Implement functions for viewing the todo list, adding a new todo, marking a todo as completed, and removing a todo.

Create a loop in the `todo_manager` function that allows users to interact with the todo list manager until they choose to quit.

Ensure input validation for user choices and handle invalid inputs gracefully.

Feel free to customize the projects or add additional features based on your preferences