**Python Programming Project 1**

Title of the project :- Quiz game

Name :-Sejal papalkar

Duration:- 7days

Introduction :-

* Brief overview of the project: A Python-based quiz game designed to test users' knowledge on various topics.
* Purpose of the document: To provide an insight into the development process, features, and technical aspects of the quiz game.

Design Choices:-

Class Structure:-

I chose to use a class (Quiz) to encapsulate the quiz functionality. This promotes code organization and encapsulation of related operations, making it easier to manage the state of the quiz and the score.

The class methods (ask question, check answer, run quiz, and display final score) correspond to distinct actions within the quiz, enhancing modularity and readability.

User Interaction:-

The quiz allows users to interact by entering their answers. This adds an element of engagement and makes the program more interactive.

Scoring System:

A scoring system is implemented to track the user's correct answers. The score is updated for each correct answer, providing feedback on the user's performance.

Feedback Mechanism:

Input Handling:-

Implementing robust input handling, especially for user answers, required careful consideration. Ensuring that the program gracefully handles various user inputs and provides meaningful feedback was a challenge.

Randomization:-

While randomizing questions adds variety, it also introduces challenges in testing and debugging. Ensuring that the randomization does not affect the correctness of the quiz required attention to detail.

Documenting the code with comments was crucial for readability. Balancing between too many and too few comments to ensure clarity without cluttering the code was a consideration.

In conclusion, the design choices aimed at creating a simple, yet interactive and customizable quiz game. The features implemented provide a comprehensive user experience, and addressing challenges led to a more robust and maintainable solution.

Conclusion :-

The objective of this project is to create a simple quiz game using Python. The game will present the user with a series of questions, multiple-choice options, and evaluate the user's answers.