

# SDLC FRAMEWORK

*(7 Phases of Software Development Life Cycle)*

## Phase 1: Planning

**Objective:** I will create an interactive quiz creator program in Python that allows users to input quiz questions along with four possible answers and the correct answer, then write the collected data into a formatted text file for later retrieval.

**Scope:** This covers the creation of a user-interactive quiz creator system that:

- Takes inputs for quiz questions and answers.
- Formats and stores the quiz data in an easily readable text file.
- Serves as a foundation component for a future quiz-taker application.

**Resources:** Python

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## Phase 2: Requirements Gathering/Analysis

**Requirements:**

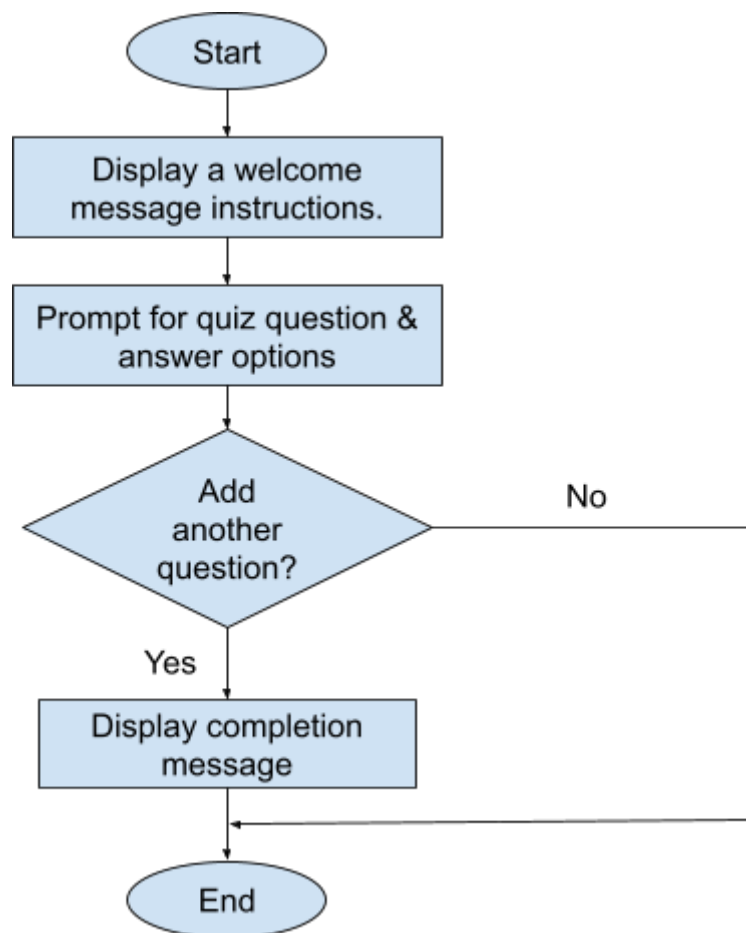
- **Input Collection:**
    - Ask the user for a quiz question.
    - Request four possible answers labeled as **a**, **b**, **c**, and **d**.
    - Collect the correct answer from the user.
  - **Looping Structure:**
    - Continuously request new questions until the user chooses to exit.
  - **Output Formatting:**
    - Write the collected data to a text file in a structured and easy-to-read format.
  - **File Handling:**
    - Format the stored data so that a future quiz program can easily read and present the quiz questions.
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## Phase 3: Design

**Algorithm (input, process, output):**

1. **Input:**
  - a. Request a quiz question from the user.
  - b. Prompt for four possible answers (a, b, c, d).
  - c. Ask for the correct answer.
2. **Process:**
  - a. Format the inputs into a structured string.
  - b. Append the formatted string to a text file.
  - c. Ask the user if they wish to enter another question.
3. **Output:**
  - a. A `.txt` file containing all the quiz questions and answers in a readable format.

**Flowchart:**



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## Phase 4: Implementation/Development

Program: [quiz\\_creator.py](#)

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## Phase 5: Testing

### Test Case 1:

**Question:** Which language is primarily used for web development?

- a) C++
- b) Java
- c) JavaScript
- d) Python

**Correct Answer:** c

### Test Case 2:

**Question:** During program development, what do software requirements specify?

- a) How the program will accomplish the task
- b) What the task is that the program must perform
- c) How to divide the task into subtasks
- d) How to test the program when it is done

**Correct Answer:** b

### Test Case 3:

**Question:** Which of the following sorting algorithms has the best average-case time complexity?

- a) Bubble Sort
- b) Merge Sort
- c) Selection Sort
- d) Quick Sort

**Correct Answer:** b

### Test Case 4:

**Question:** During program development, what do software requirements specify?

- a) How the program will accomplish the task
- b) What the task is that the program must perform
- c) How to divide the task into subtasks
- d) How to test the program when it is done

**Correct Answer:** b

**Test Case 5:**

**Question:** Which of the following sorting algorithms has the best average-case time complexity?

- a) Bubble Sort
- b) Merge Sort
- c) Selection Sort
- d) Quick Sort

**Correct Answer:** b

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## Phase 6: Deployment

**GitHub Repository:** [python\\_quiz\\_creator\\_system/](#)

**Demonstration Video Link:** [Quiz Creator Demonstration by John Mike Asuncion](#)

*Program is ready for use and can be executed.*

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## Phase 7: Maintenance & Support

*I'd be grateful for any feedback, suggestions, or ideas to help improve things :)*

- [Mike](#)