**Technical Design Document**

**Name:** Delisma Desir  
**Date Created:** March 9, 2025

**Program Description:**

This program takes a paragraph as input from the user, splits it into individual sentences, and displays each sentence along with the total number of sentences in the paragraph. It ensures that sentences starting with numbers are handled properly. The program solves the problem of easily displaying individual sentences and counting them within a given paragraph.

**Functions used in the Program:**

1. **Function Name:** split\_into\_sentences(paragraph)  
   **Description:**  
   This function splits the provided paragraph into a list of sentences based on punctuation marks like periods (.), question marks (?), and exclamation points (!). It accounts for multiple spaces after sentence-ending punctuation.  
   **Parameters:**
   * paragraph (string) – the input text (a paragraph) to be split into sentences.  
     **Variables:**
   * sentences (list) – holds the split sentences from the paragraph.  
     **Logical Steps:**
   * Use a regular expression to identify sentence-ending punctuation followed by a space.
   * Split the paragraph into individual sentences using this punctuation.
   * Return the list of sentences.  
     **Returns:**
   * sentences (list) – a list of individual sentences from the paragraph.
2. **Function Name:** display\_sentences(paragraph)  
   **Description:**  
   This function takes the paragraph input, splits it into sentences, and displays each sentence with an index. It also counts and displays the total number of sentences.  
   **Parameters:**
   * paragraph (string) – the input text (a paragraph) to be split into sentences.  
     **Variables:**
   * sentences (list) – holds the sentences returned from the split\_into\_sentences function.
   * num\_sentences (int) – stores the total number of sentences.  
     **Logical Steps:**
   * Call the split\_into\_sentences function to get the list of sentences.
   * Loop through the list of sentences, printing each sentence with its index.
   * Count the total number of sentences and display this count.  
     **Returns:**
   * None (this function prints output but does not return anything).
3. **Function Name:** main()  
   **Description:**  
   This is the entry point of the program. It handles user input and calls the necessary functions to process the input and display the results.  
   **Parameters:**
   * None  
     **Variables:**
   * paragraph (string) – holds the user input text (a paragraph).  
     **Logical Steps:**
   * Prompt the user to input a paragraph.
   * Call the display\_sentences function to process the input and display the results.  
     **Returns:**
   * None

**Logical Steps:**

1. **User Input:** The program prompts the user to enter a paragraph.
2. **Splitting Paragraph into Sentences:** The split\_into\_sentences function is called with the user's paragraph, which splits the paragraph into individual sentences based on punctuation.
3. **Displaying Sentences and Counting:** The display\_sentences function is called, which displays each sentence from the list and counts the total number of sentences.
4. **Output:** The program outputs each sentence and the total number of sentences in the paragraph.

Repository:

<https://github.com/DeeDesir/DelismaDesir_ProgrammingExercise7.py.git>

Output SS: A screenshot of a cell phone

AI-generated content may be incorrect.