**Technical Design Document For Chapter 7 Exercise**

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**Program Description:**

This program allows the user to enter a paragraph, including sentences with numbers. The program will then display each individual sentence and the count of sentences in the paragraph.

**Functions used in the Program (list in order as they are called):**

1. **Function Name:** split\_into\_sentences(paragraph)

**Description:** This function takes the input from the user and splits up each sentence in the paragraph.

**Parameters:** This function takes in the paragraph variable.

**Variables:**

1. sentences
2. cleaned\_sentences

**Logical Steps:**

1. Set sentences equal to the regular expression pattern to split up the sentences in the user’s paragraph.
2. Set cleaned\_sentences equal to a list that cleans up the results of the split.
3. Return cleaned\_sentences.

**Returns:**

1. cleaned\_sentences

2. **Function Name:** display\_and\_count(sentences)

**Description:** This function displays the output and counts the number of sentences in the paragraph.

**Parameters:** This function takes in the sentences variable.

**Variables:**

1. sentence\_number
2. sentence

**Logical Steps:**

1. Set sentence\_number equal to 0 to initialize an accumulator.
2. Print a blank space to create an empty line between the user’s input and the result.
3. Create a for loop to count the number of sentences in the paragraph and display each sentence individually.

**Returns:**

None

1. **Function name:** main

**Description:** This function receives input from the user and calls the other functions in the program.

**Parameters:** This function does not take in any parameters.

**Variables:**

1. paragraph
2. sentences

**Logical Steps:**

1. Set paragraph equal to an input function to get the user’s paragraph.
2. Set sentences equal to split\_into\_sentences(paragraph).
3. Call display\_and\_count(sentences)

**Logical Steps of the Program:**

1. main is called.
2. The program receives input from the user.
3. split\_into\_sentences(paragraph) splits the sentences in the paragraph.
4. The number of sentences are counted and each sentence is displayed individually.

**Link to your repository:** <https://github.com/Jackson112607/COP2373-ProgrammingConceptsII>