**Technical Design Document Template**

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**Program Description:**

The program is designed to detect and classify spam emails to help users identify potentially harmful or misleading messages. It scans an email message for commonly used spam words and assigns a **spam score** based on the number of occurrences. The program then evaluates the likelihood that the email is spam and provides a report, including the spam score, risk level, and detected spam words.

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

1. **Function Name:** spam\_keywords ()

**Description:** This function provides a **list of 30 commonly used spam words and phrases** found in scam emails.

**Parameters:** none

**Variables:** return, used to return the list of spam keywords.

**Logical Steps:** First define a list of **30 spam keywords** commonly found in emails, then return his list so that it can be used in other functions for spam detection.

**Returns:** A list of string containing spam related keywords and phrases.

2. **Function Name:** main()

**Description:** This is the **main function** that handles user input, scans the email message for spam words, calculates the spam score, and displays the results.

**Parameters:** none

**Variables:**

* spam\_score (integer): Keeps track of the total number of spam word occurrences.
* detected\_words (list): Stores the spam words found in the user's email.
* email\_message (string): Stores the email message input from the user.
* word (string): Each spam keyword checked against the email message.
* count (integer): The number of times a spam word appears in the email message.

**Logical Steps:**

1. Initialize spam\_score to **0** and detected\_words as an empty list.
2. Ask the **user to input an email message** and convert it to lowercase for case-insensitive comparison.
3. Loop through each spam keyword from spam\_keywords() and check if it appears in the email message.
4. If a spam keyword is found, increase the spam\_score and store the detected word.
5. Display a **spam analysis report**

**Returns:** Displays the **spam score**, likelihood classification, and spam words found in the email.

**Logical Steps:**

1. main()
2. spam\_keywords()
3. main()

**Link to your repository:** https://github.com/khoakhi3/COP2373