**Technical Design Document Template**

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**Program Description:**

This program has the user enter an email then scans the email from a list of 30 keywords for phrases in common spam emails. For each keyword, it adds a point to a “spam score” then rates the likelihood of the message being spam based on the points. It then displays the spam score and likelihood that the message is spam based on the user’s input.

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

1. **Function Name:** calculate\_spam\_score

**Description:** This function scans the user’s email for spam keywords and initializes the score.

**Parameters:** email\_message

**Variables:** spam\_score (int)- Tracks the number of spam keywords found.

Found\_spam\_keywords (list)- stores spam keywords in the user’s email.

**Logical Steps:**

Initialize spam\_score to 0.

Initialize the list for found\_spam\_keywords.

Loop each key word in the spam\_keywords list.

If a keyword is found in the email, a point is added to the spam\_score and a keyword is added to found\_spam\_keywords.

**Returns:** spam\_score and found\_spam\_keywords.

2. **Function Name:** evaluate\_spam\_likelihood

**Description:** This function determined the likelihood of the email containing spam based on the spam score calculated.

**Parameters:** spam\_score, calculate\_spam\_score

**Variables:** None

**Logical Steps:** If the spam\_score is greater than or equal to 5, the email is Likely Spam.

Is the score is between 2-4, the email is possibly spam. If the score is less than 2 it is not spam.

**Returns:** String indicating if the email is spam.

3. **Function Name:** main

**Description:** Asks the user for input and calculates the spam score and finds the keywords. It then prints the spam score, likelihood, and the key words.

**Parameters:** email\_message

**Variables:** spam\_score (int)- Tracks the number of spam keywords found.

Found\_spam\_keywords (list)- stores spam keywords in the user’s email.

**Returns:** spam\_score and found\_spam\_keywords.

**Logical Steps:**

1. Main
2. Calculate\_spam\_score
3. Evaluate\_spam\_likelihood

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