COP 2373

Programming Exercise 2

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**Program Description:**

This program accepts an email message as input and checks the text content against a bank of 30 known spam words and phrases. If occurrences are discovered, a “spam score” is displayed along with the offending phrases.

**Program Functions:**

1. **`main()`**
   1. **Description: contains the main program.**
   2. **Parameters: None.**
   3. **Variables:** 
      1. `**email\_message`:** contains the input email message.
      2. **`spam\_count`:** stores the number of spam occurrences.
      3. **`spam\_phrases`:** stores the output of `get\_spam\_phrases()`, which returns a tuple of 30 spam phrases.
      4. **`spam\_hits`:** stores the offending spam phrases discovered.
      5. **`phrase`:** stores each individual spam phrase during iteration.
      6. **`ct`:** stores the number of discovered occurrences of a given spam phrase during each iteration.
   4. **Logical Steps:** 
      1. The program collects the email message from the user and converts it to lowercase to make the later comparisons case insensitive.
      2. The program initializes the spam counter.
      3. The program initializes the spam phrase tuple, which contains the bank of spam phrases against which to check the email message.
      4. The program initializes the spam hits list, which contains all the offending phrases discovered.
      5. The program iterates through the bank of spam phrases, checking the message for any occurrences via the `str.count()` method.
      6. If the resultant count is non-zero, then the phrase is appended to the spam hits list and the count is incremented by the number of discovered occurrences.
      7. After the loop terminates, the results are displayed to the console and the program exits.
   5. **Returns:** Nothing.
2. **`get\_spam\_phrases`:** 
   1. **Description:** returns the bank of spam words and phrases.
   2. **Parameters:** None.
   3. **Variables:** None.
   4. **Logical Steps:** immediately return the tuple.
   5. **Returns:** a tuple containing only strings which contain the words and phrases.

**Program Logic:**

1. The main function is first called, and the email message is collected from the user.
2. The spam phrase getter function is then called before performing the main iteration through the email message.
3. The program exits.

**GitHub:**

[fox-2-4/COP2373: Repository for COP2373 projects](https://github.com/fox-2-4/COP2373)