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()



Problem 1

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Problem 1

1.0/1 point (ungraded)

The Message class contains methods that could be used to apply a cipher to a string, either to encrypt or to decrypt a message (since for Caesar codes this is the same action).

In the next two questions, you will fill in the methods of the Message class found in ps6.py according to the specifications in the docstrings. The methods in the Message class already filled in are:

- __init__(self, text)
- The getter method get_message_text(self)
- The getter method <code>get_valid_words(self)</code>, notice that this one returns a copy of <code>self.valid_words</code> to prevent someone from mutating the original list.

In this problem, you will fill in two methods:

1. Fill in the <code>build_shift_dict(self, shift)</code> method of the <code>Message</code> class. Be sure that your dictionary includes both lower and upper case letters, but that the shifted character for a lower case letter and its uppercase version are lower and upper case instances of the same letter. What this means is that if the original letter is "a" and its shifted value is "c", the letter "A" should shift to the letter "C".

If you are unfamiliar with the ordering or characters of the English alphabet, we will be following the letter ordering displayed by string.ascii_lowercase and string.ascii_uppercase:

```
>>> import string
>>> print(string.ascii_lowercase)
abcdefghijklmnopqrstuvwxyz
>>> print(string.ascii_uppercase)
ABCDEFGHIJKLMNOPQRSTUVWXYZ
```

A reminder from the introduction page - characters such as the space character, commas, periods, exclamation points, etc will *not* be encrypted by this cipher - basically, all the characters within string.punctuation, plus the space (''') and all numerical characters (0 - 9) found in string.digits.

2. Fill in the apply_shift(self, shift) method of the Message class. You may find it easier to use build_shift_dict(self, shift). Remember that spaces and punctuation should not be changed by the cipher.

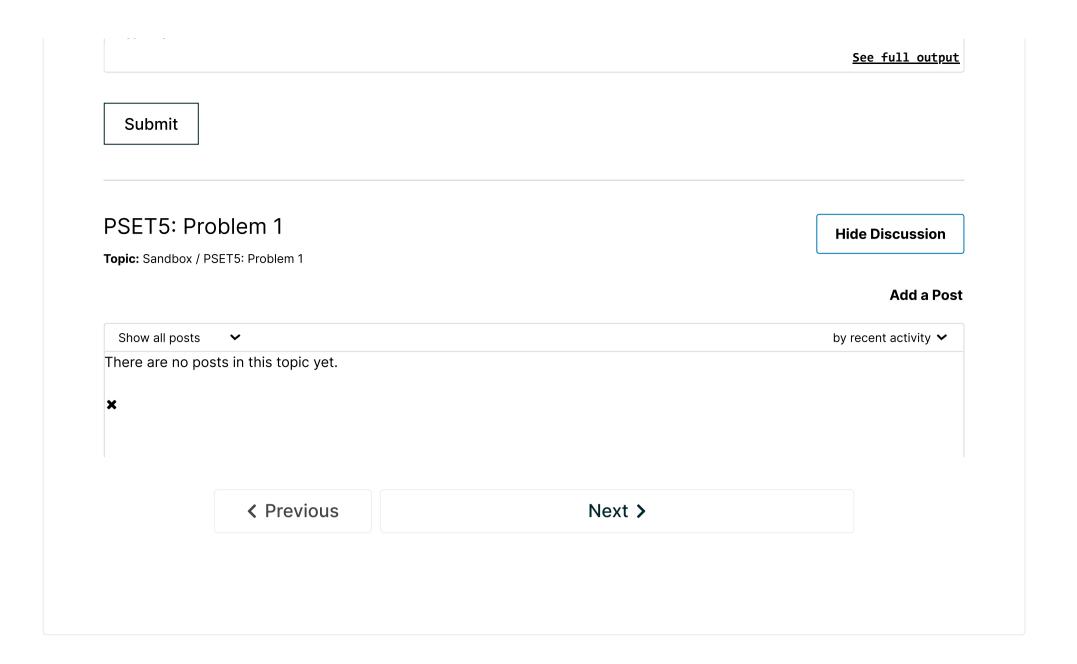
Paste your implementation of the Message class in the box below.

```
1 class Message(object):
      ### DO NOT MODIFY THIS METHOD ###
3
      def __init__(self, text):
4
5
          Initializes a Message object
6
7
          text (string): the message's text
          a Message object has two attributes:
              self.message_text (string, determined by input text)
10
11
              self.valid_words (list, determined using helper function load_words
12
13
          self.message_text = text
          self.valid_words = load_words(WORDLIST_FILENAME)
14
15
```

Press ESC then TAB or click outside of the code editor to exit

Correct

Test results



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