PROBLEM 1: ENCRYPTION : 15.0 POINTS

You'll now write a program to encrypt plaintext into ciphertext using the Caesar cipher.

Hints

Upper and Lower Case Letters

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
```

Characters to Ignore

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).

Test Cases

`buildCoder(3)`

```
{'A': 'D', 'C': 'F', 'B': 'E', 'E': 'H', 'D': 'G', 'G': 'J', 'F': 'I', 'I': 'L', 'H': 'K', 'K': 'N', 'J':
'M', 'M': 'P', 'L': 'O', 'O': 'R', 'N': 'Q', 'Q': 'T', 'P': 'S', 'S': 'V', 'R': 'U', 'U': 'X', 'T': 'W',
'W': 'Z', 'V': 'Y', 'Y': 'B', 'X': 'A', 'Z': 'C', 'a': 'd', 'c': 'f', 'b': 'e', 'e': 'h', 'd': 'g', 'g':
'j', 'f': 'i', 'i': 'l', 'h': 'k', 'k': 'n', 'j': 'm', 'm': 'p', 'l': 'o', 'o': 'r', 'n': 'q', 'q': 't',
'p': 's', 's': 'v', 'r': 'u', 'u': 'x', 't': 'w', 'w': 'z', 'v': 'y', 'y': 'b', 'x': 'a', 'z': 'c'}
```

`buildCoder(9)`

```
{'A': 'J', 'C': 'L', 'B': 'K', 'E': 'N', 'D': 'M', 'G': 'P', 'F': 'O', 'I': 'R', 'H': 'Q', 'K': 'T', 'J':
'S', 'M': 'V', 'L': 'U', 'O': 'X', 'N': 'W', 'Q': 'Z', 'P': 'Y', 'S': 'B', 'R': 'A', 'U': 'D', 'T': 'C',
'W': 'F', 'V': 'E', 'Y': 'H', 'X': 'G', 'Z': 'I', 'a': 'j', 'c': 'l', 'b': 'k', 'e': 'n', 'd': 'm', 'g':
'p', 'f': 'o', 'i': 'r', 'h': 'q', 'k': 't', 'j': 's', 'm': 'v', 'l': 'u', 'o': 'x', 'n': 'w', 'q': 'z',
'p': 'y', 's': 'b', 'r': 'a', 'u': 'd', 't': 'c', 'w': 'f', 'v': 'e', 'y': 'h', 'x': 'g', 'z': 'i'}
```

```
import string

def buildCoder(shift):
    """
    Returns a dict that can apply a Caesar cipher to a letter.
    The cipher is defined by the shift value. Ignores non-letter characters
    like punctuation, numbers, and spaces.

    shift: 0 <= int < 26
    returns: dict
    """
    ### TODO

```

Unsubmitted

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