CS21 Assignment #9
Please use the given name for your scripts!

1. (*telephone.py*) Complete Programming Exercise #5 on page 367 in your textbook. A sample run:

```
Enter the telephone number in the format XXX-XXX-XXXX: 802-GOT-FOOD
The phone number is 802-468-3663
```

2. (*book_chars.py*) Complete Programming Exercise #7 on page 367 in your textbook. The file referenced in the problem does not exist, so we have provided the text file "dracula.txt" which contains the text of Bram Stoker's <u>Dracula</u> for your use. Your program should prompt the user for the filename. Don't forget to use exception handling to deal with file issues.

```
Enter the filename: dracula.txt
Uppercase letters: 19079
Lowercase letters: 621607
Digits: 1315
Spaces: 180613
```

3. (*msg_chars.py*) Write a program to tally the frequency of every letter found in a message. Testing should be case-insensitive ('a' and 'A' count for the same letter).   In addition to the contents of Chapter 8, you will find pages 302 and 304 helpful. Use two lists, one each for alpha and count.

Sample run:

```
        Enter a string: This is pretty amazing!

        Letter  Freq
          T       3
          H       1
          I       3
          S       2
                  3
          P       1
          R       1
          E       1
          Y       1
          A       2
          M       1
          Z       1
          N       1
          G       1
          !       1
```

    Reminders (not following will result in point deductions):
- It is expected that you will use exception handling and error handing to ensure your programs are robust and will not crash.
- If a function's task doesn't include output to the user, do not do it!
- Use constants! No magic numbers! No global variables!
- It is expected that you will complete the same process of development that we use in class. When you reach the point of having an algorithm (pseudocode), this will become the comments of your program as a starting point for writing code. Comment first, then code!

- Be sure to include comments at the top of the program that include your name, class and a short description of the program.
- Each function should begin with a comment describing the task the function will perform.
- Be sure all output is formatted. Unless otherwise, specified, displays non-integer values with 2 digits after the decimal point.

Any work you submit for this assignment should be authored entirely by yourself. Assistance is permitted from the instructor or teaching assistants only. All submitted programming assignments are subject to originality verification through software designed and used for the Measure Of Software Similarity (MOSS).