Session 4 Self Practice Assignments

1. **Given a string containing uppercase characters (A-Z), compress the string using Run Length encoding. Repetition of character has to be replaced by storing the length of that run.**

   Write a python function which performs the run length encoding for a given String and returns the run length encoded String. Provide different String values and test your Program.

Sample Input	**Expected Output**
AAAABBBBCCCCCCCC	**4A4B8C**
AABCCA	**2A1B2C1A**

2. **Write a program to count and display the number of capital letters in a given string.**
   .
3. **Write a program to check if the given string is Palindrome or not?**
   .
4. **Write a program to count the number of each vowel in a string**

5. **Write a program to remove all punctuation from the string provided by the user**
   punctuations = '"!()-[]{};:'"\,<>./?@#$%^&*_~'"‘
6. **Write a Python program to accept a string and display the resultant string in reverse order .**
   The resultant string should contain all characters at the even position of accepted string ignoring blank spaces.
   Accepted string: Anappleadaykeepsthedoctoraway
   Resultant string: Aapedyepteotrwy
   Expected_output: ywrtoetpeydepaA
7. **Given a string containing both upper and lower case letters. Write a Python program to count the number of repeated characters and display the maximum count of a character along with the character.**
   Sample Input: ABaBCbGc
   Output:
   2A
   3B (three times B is repeated)
   2C
   1G
8. **Write a Python program to print the following floating numbers upto 2 decimal places with a sign.**
9. **Write a Python program to print the following floating numbers with no decimal places.**
10. **Write a Python program to print the following integers with zeros on the left of specified width.**
11. **Write a Python program to print the following integers with '*' on the right of specified width.**
12. **Write a Python program to strip a set of characters from a string**
13. **Write a python program to count repeated characters in a string.**