**DEPARTMENT OF COMPUTER APPLICATIONS**

**20MCA131 PROGRAMMING LAB**

**LAB CYCLE 2**

1. Write a Python program to count the occurrences of each word in a line of text.
   Hint: use split() function and dictionary
   Sample input : the quick brown fox jumps over the lazy dog
   Output : {'the': 2, 'jumps': 1, 'brown': 1, 'lazy': 1, 'fox': 1, 'over': 1, 'quick': 1, 'dog.': 1}

2. Write a program that accepts a string from the user and redisplays the string after removing vowels from it.
3. Write a program that finds whether a given character is present in a string or not. In case it is present it prints the index at which it is present. Do not use built in functions to search the character.
4. Write a program that encrypts a message by adding a key value to every character (Caesar Cipher) Hint : Say, if key = 3, then add 3 to every character. Use chr() and ord() functions
5. Create a string from the given string where the first and last character are exchanged.
   Eg: Python ⇒ nythoP
6. List comprehensions:
   (a) Generate positive list of numbers from a given list of integers
   (b) Square of N numbers
   (c) Form a list of vowels selected from a given word
   (d)Form a list ordinal value of each element of a word (Hint: use ord() to get ordinal values)

7. Write a program to prompt the user for a list of integers. For all values greater than 100, store ‘over’ instead.
8. Store a list of first names. Count the occurrences of ‘a’ within the list.

9. Write a program to prompt the user to enter two lists of integers and check
   (a) Whether lists are of the same length.
   (b) Whether the list sums to the same value .
   (c) Whether any value occurs in both Lists.

10. Get a string from an input string where all occurrences of the first character are replaced with '$', except the first character. [eg: onion -> oni$n]
11. Create a single string separated with space from two strings by swapping the character at position 1.
    Eg : str1 = "Hello" str2 ="World" , then create a string str3 = "Hollo Werld"
    [Hint: use slicing and concatenation ]

12. Write a python program to read two lists color-list1 and color-list2 . Print out all colors from color-list1 not contained in color-list2.

13. Create a list of colors from comma-separated color names entered by the user. Display first and last colors.
14. From a list of integers, create a list after removing even numbers.
15. Count the number of characters (character frequency) in a string.
16. Add 'ing' at the end of a given string. If it already ends with 'ing', then add 'ly'
17. Accept a list of words and return the length of the longest word.