**Python Programming**

**Lab Exercises**

1. Accept the radius from user and find area of circle.

Hint**: math.pi**

1. Find biggest of 3 numbers entered by user from console.

Hint: **max()**

1. Create a string from an input string where all occurrences of the first character replaced with ‘&’ except first character.

Hint: **Enter a String : malayala manorama**

**Output : malayala &anora&a**

1. Accept an integer n < 10 and compute n+nn+nnn.

**Hint : n=2 then sum = 2+ 22+ 222 = 246**

**a = int(input(‘Enter value’))**

**# Use string formatting:**

**n1 = int(“%s” % (a))**

**n2 = int(“%s%s” % (a,a)) etc.**

1. Accept a file name from user and print extension of that.

Hint: **split()**

1. Create a word from given string by exchanging first and last characters.

Eg: **Input – Python**

**Output – nythoP**

1. Create a single string separated with space from two strings by swapping the character at position 1.

Eg:

**Str1 = ‘Python’**

**Str2 = ‘Programming’**

**Output = ‘Prthon Pyogramming’**

1. List Comprehension:
2. Generate positive list of numbers from a given list of numbers.
3. Generate a list with square of numbers from a given list
4. Form a list containing vowels from a given word
5. Generate ordinal value of each letter of a word. (Hint: use ord() to get ordinal values)
6. Generate a list of numbers by removing even numbers from a given list.
7. Display leap years from current year to a future year entered by user.
8. Create a list of colours from comma separated list of colour names entered by user. Print alternate colors.

Enter colours: Red, Green, Blue, Orange, Yellow, Indigo, White

Result: [‘Red’, ‘Blue’, ‘Yellow’, ‘White’]

1. Count the number of words in a line of text.
2. Create a list of first-names. Count the number of names that starts with ‘a’.
3. Write python program to merge two dictionaries.
4. Write a program to sort a dictionary in ascending and descending order.

Hint : **sorted(<dictionary\_object>)** # Returns list of keys sorted in ascending order

**sorted(<dictionary\_object>, reverse = True)** # Returns list of keys sorted in descending order.

1. Print out all colors from color-list1 not contained in color-list2
2. Write a program to determine frequency of words in a sentence.
3. Write a program to determine frequency of alphabets in a word.
4. Enter 2 collections of integers. Check (a) Whether they are of the same length (b) whether they sums to the same value (c) whether any value occur in both.
5. Write a program to remove duplicates from a list.
6. Write a program to create an inverted dictionary.
7. Write a program to check if a given key already exists in a dictionary.