**PYTHON ACTIVITY 4:**

**Solve using if statement:**

1)Write a program that reads an integer from the user. Then your program should display a message indicating whether the integer is even or odd.

1. The length of a month varies from 28 to 31 days. In this exercise you will create a program that reads the name of a month from the user as a string. Then your program should display the number of days in that month. Display “28 or 29 days” for February so that leap years are addressed.

3)Canada has three national holidays which fall on the same dates each year.

Holiday Date

New year’s day January 1

Canada day July 1

Christmas day December 25

Write a program that reads a month and day from the user. If the month and day match one of the holidays listed previously then your program should display the holiday’s name. Otherwise your program should indicate that the entered month and day do not correspond to a fixed-date holiday.

HINT:Canada has two additional national holidays, Good Friday and Labour Day, whose dates vary from year to year. There are also numerous provincial and territorial holidays, some of which have fixed dates, and some of which have variable dates. We will not consider any of these additional holidays in this exercise.

**Solve using loop:**

4)Write a program to display all the prime factors for a given number that is entered by the user.

**Solve using dictionary:**

5)Write a Python script to concatenate following dictionaries to create a new one.

Sample Dictionary :  
dic1={1:10, 2:20}  
dic2={3:30, 4:40}  
dic3={5:50,6:60}  
Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}

6)Write a Python program to iterate over dictionaries using for loops.

7)Write a Python script to merge two Python dictionaries.

8)Write a Python program to sum all the items in a dictionary.

9)Write a Python program to get the maximum and minimum value in a dictionary.

10)Write a Python program to check a dictionary is empty or not.