<u>**Refresher Course on**</u>

Data Science

Assignment : 1

1. Write a program to read Celsius temperature and print equivalent Fahrenheit temperate on screen.

2. Read radius of the circle from user and find the area and perimeter of it.

3. Read the amount and percentage of interest from the keyboard and find final amount after adding interest in original amount.

4. Write a program to read distance value in meters and convert it into centimeters, inches, and yards.

5. Write a Python program to calculate profit or loss. Input is selling cost and actual cost of a product.

6. Write a program to input basic salary and find output of gross salary using following:
   DA = 75% of basic
   HRA = 20% of basic
   Conditions:
   Basic < 10000 : gross = da + basic
   Basic >= 10000 and < 20000 : gross = da + basic + 50% of hra
   Basic >= 20000 : gross = basic + da + hra

   Sample: Input and Output
   5000 : 3750 + 5000 = 8750
   12000 : 9000 + 12000 + 1200 = 22200
   24000 : 18000 + 24000 + 4800 = 46800

7. Write a program to read a number from user and find the factorial of the number.

   Example: Factorial for 5 = 5 x 4 x 3 x 2 x 1 = 120

8. Write a program to read num1 and num2 from keyboard and find addition of all number between that range.

9. See the tuple given: num = (56,2,35,41,43,48,32,56,71,55,68)

   Write a program to create two lists from it where first list contains only even numbers and second will contain only odd numbers.

10. Write a program to read a number from user. Create and use a user defined function to check whether it is odd or even?

11. Write a program to read a number from user and find the square root, sin, tan, log and factorial of this number using math module.

12. Write a Python class named 'Rectangle' with two attributes length and width and a method named 'calculate' which will compute the area of a rectangle. Create an object to pass length and width and call the method to calculate the area of rectangle.