GLS UNIVERSITY
Msc.IT PROGRAMME [SEMESTER-I]
SUBJECT: OBJECT ORIENTED PROGRAMMING FOR PYTHON LABORATORY

TASK - 6

DATE: 14 SEPTEMBER 2023   TASK DEADLINE: 23 SEPTEMBER 2023

1. Write a python program for creating class Fraction with members numerator and denominator to represent rational numbers like 1/2 and -3/8. Create a constructor to initialize the objects and write the method for addition and multiplication of two fractions and display the result in proper fraction format.

2. Write a python program to create a class Room with members length and breadth. Initialize the attributes and find the area of the room and display the result.

3. Create class point with members x and y. Create method for finding the euclidian distance between two points.

4. Write a python program to demonstrate the concept of default arguments. Create the employee class: name, department and basic_salary. Write a function to to calculate total salary of the employee where total salary is sum of basic salary, DA and HRA. DA is 10% of basic salary and HRA is 15% of basic salary. If basic salary is missing, take default argument of basic salary as Rs. 9000.

5. Write a python program to create class student with data name, roll no, sem, marks of 5 subject. Create a method to calculate percentage of the student.

6. Create class complex with members real and imaginary and create a method for addition and multiplication of two complex numbers.

7. Create class date with members day, month and year. Create constructor for initialising the values. Write a function for validation of the date. If date is not valid display proper message.

8. Write a python program for creating class Height with members feet and inch. Create a constructor to initialize the objects and write the method for addition of two Height objects , validate and display the result. (For validation: Inch<12).