

# **Programming Laboratory-I**

## **Assignment No-9**

**(Python Class, File and Exception handling) Due date- 1-12-2022**

1. Create a Temperature class. Make two methods :
  1. ConvertFahrenheit - It will take Celsius and will print it into Fahrenheit.
  2. ConvertCelsius - It will take Fahrenheit and will convert it into Celsius.
2. Create a Time class and initialize it with hours and minutes.
  1. Make a method addTime which should take two time object and add them. E.g.- (2 hour and 50 min)+(1 hr and 20 min) is (4 hr and 10 min)
  2. Make a method displayTime which should print the time.
  3. Make a method DisplayMinute which should display the total minutes in the Time. E.g.- (1 hr 2 min) should display 62 minute.
3. Write a Python class to convert an integer to a roman numeral
4. Write a Python class to get all possible unique subsets from a set of distinct integers. Go to the editor  
Input: [4, 5, 6]  
Output: [[], [6], [5], [5, 6], [4], [4, 6], [4, 5], [4, 5, 6]]
5. Write a program in python for binary search using class.
6. Write a program using class to accept 3 numbers from user and display largest, second largest and smallest number among three.
7. Write a program using class to read 3 values of a, b and c and calculate value of X as
$$X = a/b - c$$
8. Perform below operations on any text file.
  - a. Open (using create mode)
  - b. Read (using read(), readLine() and for loop)

- c. Write (using append mode as well as write mode)
  - d. Close
  - e. Delete
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- 9. Write a program for exception handling which contains single try block and multiple except blocks.
  - 10. Write a program for exception handling for studying functionality of **else** and **finally** statements.
  - 11. Write a program of exception handling which throws an exception using **raise** keyword (there should be multiple raise statements based on certain condition)