

CL-217 OBJECT ORIENTED PROGRAMMING LAB

LAB TASK 6

INSTRUCTOR: MUHAMMAD HAMZA

SEMESTER SPRING 2020

- 1. Define a class counterType to implement a counter. Your class must have a private data member counter of type int and functions to set counter to the value specified by the user, initialize counter to 0, retrieve the value of counter, and increment and decrement counter by one. The value of the counter must be nonnegative.
- 2. Write a program that converts a number entered in Roman numerals to a positive integer. Your program should consist of a class, say,romanType. An object of type romanType should do the following:
 - a. Store the number as a Roman numeral.
 - b. Convert and store the number as a positive integer.
 - c. Print the number as a Roman numeral or positive integer as requested by the user. The integer values of the Roman numerals are:

M	1000
D	500
С	100
L	50
Χ	10
V	5
I	1

- d.Test your program using the following Roman numerals: MCXIV ,CCCLIX , and MDCLXVI .
- 3. Design and implement a class dayType that implements the day of the week in a program. The class dayType should store the day, such as Sun for Sunday. The program should be able to perform the following operations on an object of type dayType :
 - a. Set the day.
 - b. Print the day.
 - c. Return the day.
 - d. Return the next day.
 - e. Return the previous day.
 - f. Calculate and return the day by adding certain days to the current day. For example, if the current day is Monday and we add 4 days, the day to be returned is Friday. Similarly, if today is Tuesday and we add 13 days, the day to be returned is Monday.
 - g. Add the appropriate constructors.