Lab Sheet 5

**Associative Containers**

1. Perform the following action on a set
   1. Input number of iterations required
   2. Loop till the iteration become 0
   3. Ask the user to input 1 to insert, 2 to search for the element in the set.
   4. If the number is inserted, it should say “ %d is inserted”
   5. If the number has to be searched and if found print “ %d found “ else %d not found”
   6. Change the code in such a way that if the number is already there

It should say “number %d already there in the set “ else “number %d inserted successfully

1. Perform the same action on multi set. If more than one number Is there it should say “%d found %d times in the array” while searching
2. Create a set which has pairs <int,int>. Assume the age category of people are divided like this 1-9,10-20, 21-40, 41-60, 61-80,81-100. Assume the age of people travelling in a bus is the following {1,30,25,60,75,41} , Print the category in which the age falls into.

1 – category 1-9

30 – category 21-40

Also print number of people lying in each category.

1-9 - number of people 1

Map

1. Define number of days in each month, ask the user to input the month , you should output the corresponding number of days. Print the previous month and number of days and next month and number of days

Input : June

30 days

July

31 days

May

31 days

1. Add the following to map

map<string, int> mymap string is name and int is roll number (Last 5 digits of your rollnumber). Take test data from your class

* 1. Print the details in ascending and descending order of name
  2. Print the details in ascending and descending order of roll number

1. Get a sentence from the user

Using map print the count of words in the sentence.

Homework

* 1. <https://www.hackerrank.com/challenges/cpp-sets/problem?h_r=internal-search>
  2. https://www.hackerrank.com/challenges/cpp-maps/problem?h\_r=internal-search