

List of Programs

Subject Code: PCS-307

Subject: OOP Using C++ Programming Lab

1. Write a program in C++ to display the multiplication table vertically from 1 to n.

Sample Output:

Input the number upto: 5

Multiplication table from 1 to 5

1x1=1 2x1=2 3x1=3 4x1=4 5x1=5

1x2=2 2x2=4 3x2=6 4x2=8 5x2=10

1x3=3 2x3=6 3x3=9 4x3=12 5x3=15

1x4=4 2x4=8 3x4=12 4x4=16 5x4=20

1x5=5 2x5=10 3x5=15 4x5=20 5x5=25

1x6=6 2x6=12 3x6=18 4x6=24 5x6=30

1x7=7 2x7=14 3x7=21 4x7=28 5x7=35

1x8=8 2x8=16 3x8=24 4x8=32 5x8=40

1x9=9 2x9=18 3x9=27 4x9=36 5x9=45

1x10=10 2x10=20 3x10=30 4x10=40 5x10=50

2. Write a program in C++ to display the sum of the series [9 + 99 + 999 + 9999 ...]

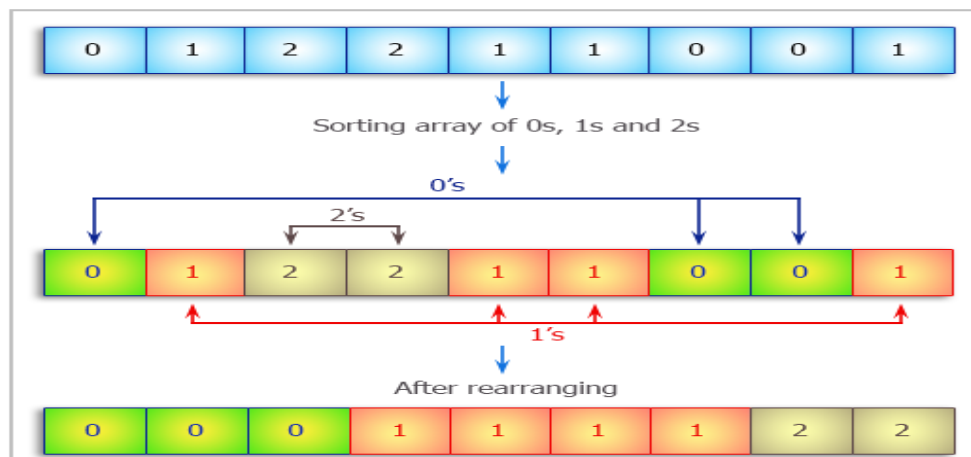
Sample Output:

Input number of terms: 5

9 99 999 9999 99999

The sum of the Series = 111105

3. Write a C++ program to sort a given array of 0s, 1s and 2s. In the final array put all 0s first, then all 1s and all 2s in last.



4. Create a Java program to perform survey on four different model of Maruti (Maruti -K10, Zen-Astelo, Wagnor, Maruti- SX4) owned by person living in four metro cities(Delhi, Mumbai, Chennai & Kolkatta). Display tabulated report like format given below:

	Maruti-K10	Zen-Astelo	Wagnor	Maruti-SX4
Delhi				
Mumbai				
Cheenai				
Kolkatta				

Calculate numbers of cars of different model in each metro city.

5. The daily maximum temperatures recorded in 5 cities during the month of January (for all 31days) have been tabulated as follows:

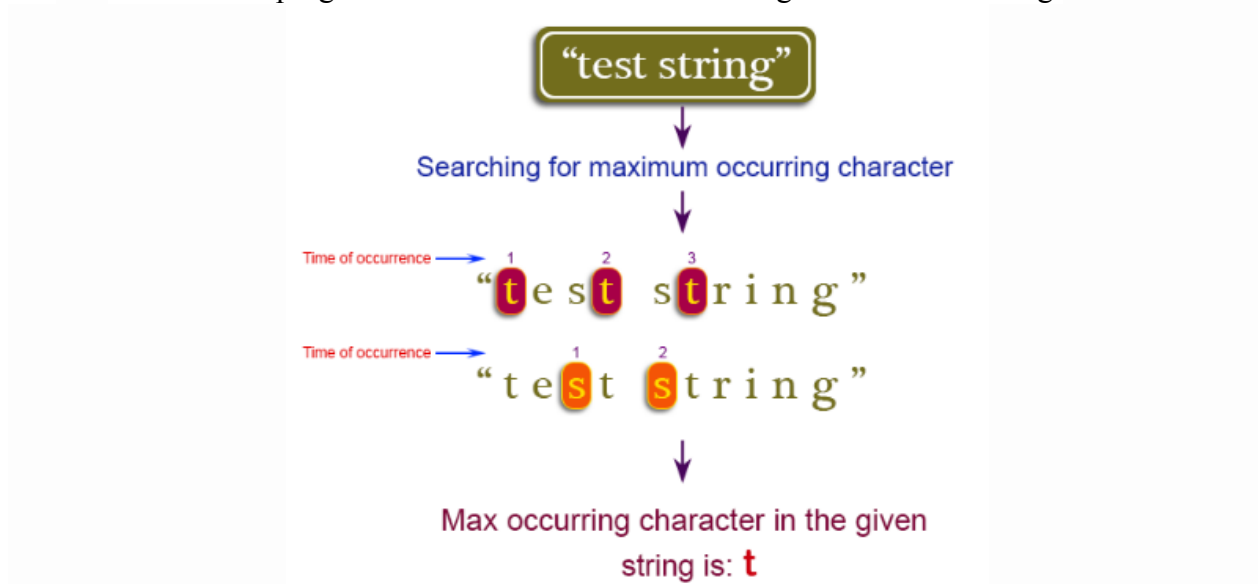
Cities

Day	Delhi	Mumbai	Kolkatta	Chennai	Dehradun
1					
2					
10					

Write a program to read the table elements into a two-dimensional array temperature, and to find the city and day corresponding to (a) the highest temperature and (b) the lowest temperature.

6. Write C++ program to reverse each word of string.
e.g. Input- I love my India Output – I evol ym aidnI)

7. Write a C++ program to find the maximum occurring character in a string.



8. A class **Telcall** calculates the monthly phone bill of a consumer. Some of the members of the class are given below:

Class name:

Data members/instance variable : phno(phone Number), sname(subscriber Name)
n(number of calls made) and amt (bill amount).

Member function/methods:

TelCall() : Parameterized constructor to assign values to data members.

Void compute() : to calculate the phone bill amount base on the slabs given below.

Void display() : to display the details in the specified format.

Number of calls

1 – 100

101 – 200

201-300

Above 300

Rate

Rs. 500/- rental charge only

Rs 1.00 per call + rental charge

Rs. 1.20 per call + rental charge

Rs. 1.50 per call + rental charge

9. Design a class to represent bank account. Includes the following members:

- Name of depositor
- Account number
- Type of account
- Balance amount in the account

Methods:

- To assign initial values
- To deposit an amount
- To withdraw an amount after checking balance.
- To display the name and balance.

Write a program to incorporate the constructor to provide initial values.

10. Write a program to implement array of object.

11. Write a program to compare two objects using friend functions.

12 Create a class of Employ, in that considers their names, age, and employee code. In the same class, create a - (subtract) overloading operator to find the age gap of two employees?

Example:

[Employ is a Class in C++]

```
Employ e1("Nitin", 30, "E001");
```

```
Employ e2("Amit", 25, "E002");
```

```
int diff = e1 - e2;
```

13. Write a program to count number of objects created for a class.

14. Write a C++ program to declare a class. Declare pointer to class. Initialize and display the contents of the class member.

15. Write a C++ program to use scope resolution operator. Display the various values of the same variables declared at different scope levels.