

**Don Bosco Institute of Technology, Kurla(W)**  
**Department of Electronics and Tele-Communication Engineering**  
**ECL304 - Skill Lab: C++ and Java Programming**  
**Sem III**  
**2021-22**

<b>Lab Number:</b>	<b>3</b>
<b>Student Name:</b>	UMER RAFIQUE SHAIKH
<b>Roll No :</b>	44

**Title:**

3.1 Write a C++ program to Create a class Student with two methods getData() and printData(). getData() to get the value from the user and display the data in printData(). Create the two objects s1 ,s2 to declare and access the values from class StudentTest.

3.2 Write a C++ program for Basic bank Management System

**Learning Objective:**

- Students will be able to write C++ and java programs for using classes and objects.

**Learning Outcome:**

- Ability to execute a simple C++ and Java program by accepting and displaying values using functions
- Understanding the classes and objects concept in C++ and Java.

**Course Outcome:**

<b>ECL304.1</b>	Understand object-oriented programming concepts and implement using C++ and Java
-----------------	--

**Theory:**

**Difference between procedural and object oriented language :**

Procedural programming uses a list of instructions to tell the computer what to do step-by-step. Procedural programming relies on - you guessed it - procedures, also known as routines or subroutines. A procedure contains a series of computational steps to be carried out. Procedural programming is also referred to as imperative programming. Procedural programming languages are also known as top-down languages. Object-oriented programming, or OOP, is an approach to problem-solving where all computations are carried out using objects. An object is a component of a program that knows how to perform certain actions and how to interact with other elements of the program. Objects are the basic units of object-oriented programming .

**Faculty: Ms. Deepali Kayande**

**Don Bosco Institute of Technology, Kurla(W)**  
**Department of Electronics and Tele-Communication Engineering**  
**ECL304 - Skill Lab: C++ and Java Programming**  
**Sem III**  
**2021-22**

**Application of object orientation :**

- User interface design such as windows, menu
- . • Real Time Systems
- Simulation and Modeling
- Object oriented databases
- AI and Expert System
- Neural Networks and parallel programming
- Decision support and office automation systems etc.

**Brief introduction to C++ :**

C++ (pronounced "see plus plus") is a programming language that began as an expanded version of C. The C++ were first invented by Bjarne Stroustrup in 1979 at Bell Laboratories in Murray Hill, New Jersey. Bjarne Stroustrup initially called the new language "C with Classes." However, in 1983 the name was changed to C++. C++ is a middle-level programming language. C++ is a statically typed, compiled, general purpose, case -sensitive, free-form programming language that supports procedural, object-oriented, and generic programming.

**Algorithm :**

1. Start
2. Define Class BankLab 2
3. Define attributes – Name , account\_type , account\_number, amount, balance
4. Declare attributes by using the constructor of class.
5. Define and declare method – deposit() to deposit the amount
6. Define and declare method – withdraw() to withdraw the amount
7. Define and declare method – display() to display the account details
8. Define Main function()

**Don Bosco Institute of Technology, Kurla(W)**  
**Department of Electronics and Tele-Communication Engineering**  
**ECL304 - Skill Lab: C++ and Java Programming**  
**Sem III**  
**2021-22**

	<p>9. Create object b1, b2, b3 to call the class functionality.</p> <p>10. Do – while loop to repeat the process.</p>
<b>Program:</b>	<a href="https://github.com/umershaikh17/Skill-lab-with-oopm/blob/main/44_lab3bank.cpp">https://github.com/umershaikh17/Skill-lab-with-oopm/blob/main/44_lab3bank.cpp</a>
<b>Input given:</b>	<p>choose a number : 1</p> <p>enter account number : 2</p>

**OUTPUT :**

```

9
10 #include<iostream>
11 using namespace std;
12
13
14 class BankLab2 {
15
16 public:
17 string name;
18 char account_type;
19 int account_number, amount;
20 float balance;
21 BankLab2(string n, int a, char t, float b) {
22 name = n;
23 account_number = a;
24 account_type = t;
25 balance = b;
26 }
27 int deposit()
28 {
29 cout<<"Enter the amount to deposit: ";

```

```

/tmp/cNwVYiVi0o.o
Menu
1.Deposit
2.Withdraw
3.Display
Enter option
1
Please enter your account number:
2
Enter the amount to deposit: 100
Do you want to continue?[Y/N]y
Menu
1.Deposit
2.Withdraw
3.Display
Enter option

```

**Algorithm 2:**

1. Start
2. Define Class Student
3. Define attributes – Name , Roll\_no, cgpa, div , branch
4. Define and declare the method – getdata() to get input from the user.
5. Define and declare method – printdata() to print the values

**Faculty: Ms. Deepali Kayande**

**Don Bosco Institute of Technology, Kurla(W)**  
**Department of Electronics and Tele-Communication Engineering**  
**ECL304 - Skill Lab: C++ and Java Programming**  
**Sem III**  
**2021-22**

6. Define Main function()
7. Create object s1, s2 to call the class functionality.
8. End.

**Program 2 :**

[https://github.com/umershaikh17/Skill-lab-with-oopm/blob/main/44\\_lab3students.cpp](https://github.com/umershaikh17/Skill-lab-with-oopm/blob/main/44_lab3students.cpp)

**Input given :**

Name : Umer

Roll number : 44

CGPA : 9.2

DIV : B

Branch : EXTC

Name : random

Roll number : 46

CGPA : 9.1

DIV : A

Branch : EXTC

**OUTPUT:**

**Don Bosco Institute of Technology, Kurla(W)**  
**Department of Electronics and Tele-Communication Engineering**  
**ECL304 - Skill Lab: C++ and Java Programming**  
**Sem III**  
**2021-22**

```
1 #include<iostream>
2 using namespace std;
3 class Student {
4 public:
5 string name;
6 int roll_no;
7 float cgpa;
8 char div;
9 string branch;
10 void getdata()
11 {
12     cout<<"Enter your name:"<<endl;
13     cin>>name;
14     cout<<"Enter your roll number:"<<endl;
15     cin>>roll_no;
16     cout<<"Enter your CGPA:"<<endl;
17     cin>>cgpa;
```

```
/tmp/MAD66fY04f.o
Enter your name:
umer
Enter your roll number:
44
Enter your CGPA:
9.2
Enter your Division:
B
Enter your branch:
Extc
Name of the student: umer
Roll-no of the student: 44
Cgpa of the student: 9.2
Division of the student: B
Branch of the student: Extc
Enter your name:
```

**Faculty: Ms. Deepali Kayande**