

**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>4</b>                     |
| <b>Student Name:</b> | <b>Moozhayil Aditya Saju</b> |
| <b>Roll No :</b>     | <b>3</b>                     |

**Title:**

4.1 Write a Java program to Create a class Student with two method 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.

4.2 Write a Java program for Basic bank Management System

**Learning Objective:**

- Students will be able to write C++ and java program 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 |
|-----------------|----------------------------------------------------------------------------------|

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4.1 Write a Java program to Create a class Student with two method 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.

```
import java.util.Scanner;
```

```
class Student {
```

```
    Scanner in=new Scanner(System.in);
```

```
    String name;
```

```
    int roll_no;
```

```
    float cgpa;
```

```
    char div;
```

```
    char branch;
```

```
    void getdata()
```

```
    {
```

```
        System.out.println("Enter your name:");
```

```
        name=in.next();
```

```
        System.out.println("Enter your roll number:");
```

```
        roll_no=in.nextInt();
```

```
        System.out.println("Enter your CGPA:");
```

```
        cgpa=in.nextFloat();
```

```
        System.out.println("Enter your Division:");
```

```
        div=in.next().charAt(0);
```

```
        System.out.println("Enter branch:");
```

```
        branch=in.next().charAt(0);
```

```
    }
```

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```
void getdata(String n,int r,float c,char d, char b)
{
    name=n;
    roll_no=r;
    cgpa=c;
    div=d;
    branch=b;
}

void printdata()
{
    System.out.println("Name of the student: "+name);
    System.out.println("Roll-no of the student: "+roll_no);
    System.out.println("Cgpa of the student: "+cgpa);
    System.out.println("Division of the student: "+div);
    System.out.println("branch of the student: "+branch);
}

};

public class StudentTest {

    public static void main(String[] args) {

        Student s1=new Student();
        Student s2=new Student();
```

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```
s1.getdata();  
s1.printdata();  
s2.getdata();  
s2.printdata();
```

```
}
```

```
}
```



The screenshot shows a terminal window titled 'input' with a black background and white text. It displays the execution of a C++ program that takes student data as input and prints it back. The input sequence is: 'ADITYA' for name, '3' for roll number, '8.1' for CGPA, 'B' for division, and 'EXTC' for branch. The output sequence is: 'Name of the student: ADITYA', 'Roll-no of the student: 3', 'Cgpa of the student: 8.1', 'Division of the student: B', and 'Branch of the student: EXTC'. The prompt 'Enter your name:' is shown at the end of the output.

```
input  
Enter your name:  
ADITYA  
Enter your roll number:  
3  
Enter your CGPA:  
8.1  
Enter your Division:  
B  
Enter your branch:  
EXTC  
Name of the student: ADITYA  
Roll-no of the student: 3  
Cgpa of the student: 8.1  
Division of the student: B  
Branch of the student: EXTC  
Enter your name:
```

4.2 Write a Java program for Basic bank Management System

```
import java.util.Scanner;
```

```
public class BankLab2 {
```

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```
Scanner in=new Scanner(System.in);
```

```
String name;
```

```
char account_type;
```

```
int account_number,amount;
```

```
float balance;
```

```
public BankLab2(String n,int a, char t, float b) {
```

```
// TODO Auto-generated constructor stub
```

```
name = n;
```

```
account_number=a;
```

```
account_type=t;
```

```
balance=b;
```

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}

**int deposit()**

{

**System.out.println("Enter the amount to deposit: ");**

**int amount=in.nextInt();**

**if(amount<0)**

{

**System.out.println("Invalid amount,Enter a valid amount");**

**return 0;**

}

**balance=balance+amount;**

**return 1;**

}

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```
int withdraw()

{

    System.out.println("Your Balance= "    +balance );

    System.out.println("Enter amount to withdraw: ");

    int amount=in.nextInt();

    if (balance<amount)

    {

        System.out.println("Insufficient Balance: ");

        return 0;

    }

    if(amount<0)

    {

        System.out.println("Invalid amount" );
```

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```
        return 0;

    }

    balance=balance-amount;

    return 1;

}

void display()

{

    System.out.println("Name :"+name);

    System.out.println("Account Number:" +account_number);

    System.out.println("Account Type:" +account_type);

    System.out.println("Balance: " +balance);

}
```



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```
public static void main(String[] args) {  
  
    // TODO Auto-generated method stub  
  
    Scanner in=new Scanner(System.in);  
  
    BankLab2 b1=new BankLab2("salman",1,'s',2000);  
  
    BankLab2 b2=new BankLab2("makarand",2,'s',2000);  
  
    BankLab2 b3=new BankLab2("siddharth",3,'s',2000);  
  
  
    System.out.println("Menu");  
  
    System.out.println("1.Deposit");  
  
    System.out.println("2.Withdraw");  
  
    System.out.println("3.Display");  
  
    System.out.println("Enter option");  
  
    int op=in.nextInt();  
  
    char ans;
```

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**do**

**{**

**System.out.println("Please enter your account number:");**

**int account\_number=in.nextInt();**

**switch(account\_number)**

**{**

**case 1: if(op==1)**

**b1.deposit();**

**if(op==2)**

**b1.withdraw();**

**if(op==3)**

**b1.display();**

**break;**

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**case 2: if(op==1)**

**b2.deposit();**

**if(op==2)**

**b2.withdraw();**

**if(op==3)**

**b2.display();**

**break;**

**case 3: if(op==1)**

**b3.deposit();**

**if(op==2)**

**b3.withdraw();**

**if(op==3)**

**b3.display();**

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```
break;

default: System.out.println("Enter value between 1
to 3");

break;

}

System.out.println("Do you want to continue?[Y/N]");

ans=in.next().charAt(0); //char input in variable ans

if(ans=='Y' || ans == 'y')

{

    System.out.println("Menu");

    System.out.println("1.Deposit");

    System.out.println("2.Withdraw");

    System.out.println("3.Display");

    System.out.println("Enter option");
```

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**op=in.nextInt();**

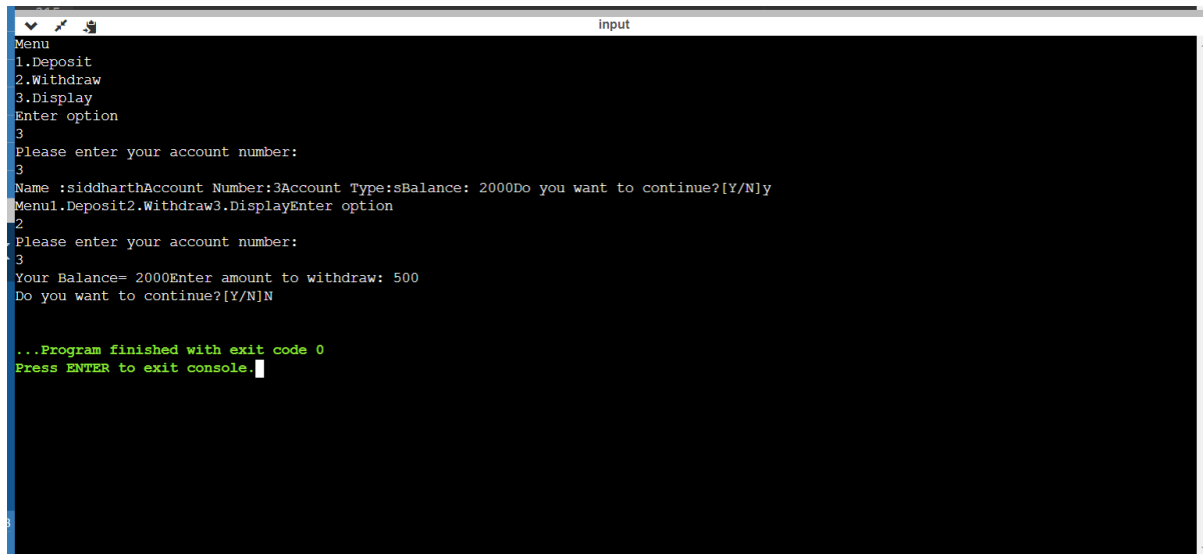
**}**

**}**

**while(ans!='N');**

**}**

**}**



```
Menu
1.Deposit
2.Withdraw
3.Display
Enter option
3
Please enter your account number:
3
Name :siddharthAccount Number:3Account Type:sBalance: 2000Do you want to continue?[Y/N]y
Menu1.Deposit2.Withdraw3.DisplayEnter option
2
Please enter your account number:
3
Your Balance= 2000Enter amount to withdraw: 500
Do you want to continue?[Y/N]N

...Program finished with exit code 0
Press ENTER to exit console.
```