Lab Number:	4
Student Name:	**Russel D'mello**
Roll No :	**32**

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:

ECL304.1	Understand object-oriented programming concepts and implement using C++ and Java

Theory:

Explain about Constructor.

A constructor in java is a block of code similar to a method that's called when an instance of an object is created. A constructor doesn't have a return type. It must be the same as the name of the class. A constructor is called automatically when a new instance of an object is created.

Explain about classes and objects in Java

A class is a user defined blueprint or prototype from which objects are created. It represents the set of properties or methods that are common to all objects of one type.

 Object is a basic unit of Object-Oriented Programming and represents the real life entities. A typical Java program creates many objects, which as you know, interact by invoking methods. Constructors are used for initializing new objects. Fields are variables that provide the state of the class and its objects, and methods are used to implement the behavior of the class and its objects.

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How to access class attributes and methods? Explain with example

A class is an element in object oriented programming that aggregates attributes(fields) - which can be public accessible or not - and methods(functions) - which also can be public or private and usually writes/reads those attributes.

Accessing Attributes

You can access attributes by creating an object of the class, and by using the dot syntax (.):

The following example will create an object of the Main class, with the

name myObj. We use the x attribute on the object to print its value:

Example

Create an object called "myObj" and print the value of x:

```
public class Main {
 int x = 5;
 public static void main(String[] args) {
   Main myObj = new Main();
   System.out.println(myObj.x);
 }
}
```

METHODS

A method is a block of code which only runs when it is called.

You can pass data, known as parameters, into a method.

Methods are used to perform certain actions, and they are also known as functions.

To call a method in Java, write the method's name followed by two parentheses () and a semicolon;

In the following example, myMethod() is used to print a text (the action), when it is c

Example

Inside main, call the myMethod() method:

```
public class Main {
```

```
static void myMethod() {

 System.out.println("I just got executed!");

}

        public static void main(String[] args) {

 myMethod();

}

}
```

Algorithm :	STEP 1. Start
	STEP 2. Define Class Student
	STEP 3. Define attributes – Name , Roll_no, cgpa, div , branch
	STEP 4. Define and declare method – getdata() to get input from user.
	STEP 5. Define and declare method – printdata() to print the values
	STEP 6. Define Main function()
	STEP 7. Create object s1, s2 to call the class functionality.
	STEP 8. Print result
	STEP 9. End.
Program:	https://github.com/russ070/Skill-lab-with-OOPM/blob/main/32_Lab4.java
Input given:	**Abhay**　　　　**Anmol**
	32　　　　　　24
	EXTC　　　　　EXTC
	8　　　　　　　7

Output Screenshot:


```
Student name=
Abhay
Student rollno=
32
Student department=
EXTC
Student cgpa=
8

Student name= Abhay
Student rollno=32
Student department= EXTC
Student cgpa=8

Student name=
Anmol
Student rollno=
24
Student department=
EXTC
Student cgpa=
7

Student name= Anmol
Student rollno=24
Student department=EXTC
Student cgpa=7


  JDoodle - Timeout
If your program reads input, please enter the inputs in th
```
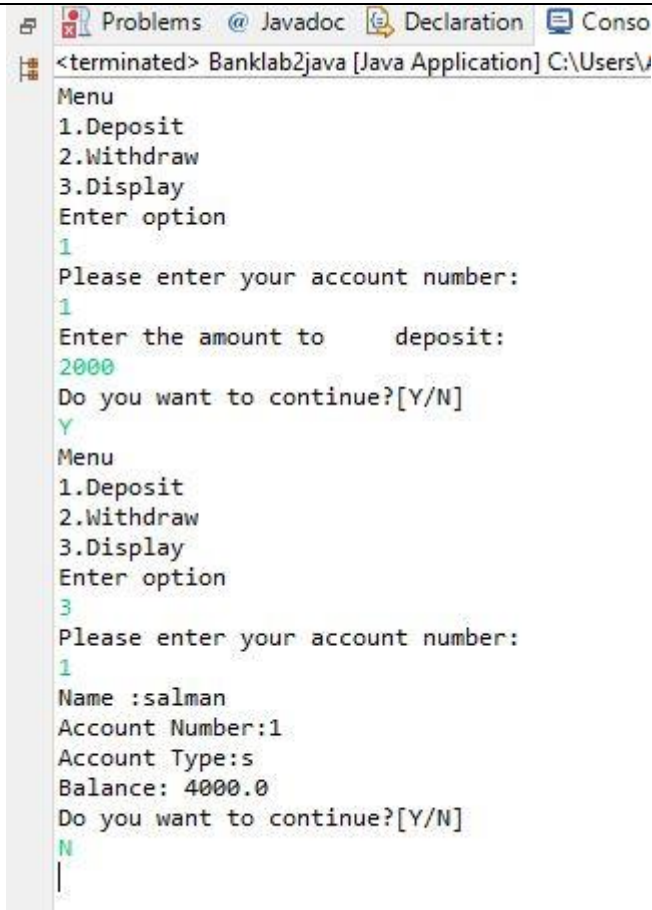
Algorithm :	STEP 1. Start
	STEP 2. Define Class BankLab 2
	STEP 3. Define attributes – Name , account_type , account_number,
	amount, balance.
	STEP 4. Declare attributes by using constructor of class.
	STEP 5. Define and declare method – deposit() to deposit the amount
	STEP 6. Define and declare methods – withdraw() to withdraw the amount
	STEP 7. Define and declare methods – display() to display the account details
	STEP 8. Define Main function()
	STEP 9. Create object b1, b2, b3 to call the class functionality.
	STEP 10. Do – while loop to repeat the process.

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	STEP 11. Print result STEP 12. end
Program:	https://github.com/russ070/Skill-lab-with-OOPM/blob/main/32_Lab4.java
Input given:	1 1 2000 Y 3 1 N
Output Screenshot:	