

LAB 3

NAME: Aditya Anand

ROLL NO.: 20124009

BRANCH: IT

S No.	Title	Date Of Implementation	Remarks
1	Program to illustrate constructors	24-01-2021	

Program to illustrate constructors

OBJECTIVE:

The following program inputs 2 numbers from the user, stores them in a class object and outputs them.

I created a class Numbers that stores two numbers. The class has 3 constructors which are chained using the this keyword. Also I have created a copy constructor to directly copy the values of one object to another.

CODE:

```
import java.util.Scanner;

public class Lab3 {
    public class Numbers{
        int n1, n2;

        Numbers(){    // DEFAULT CONSTRUCTOR
            System.out.println("Inside the default constructor");
        }

        Numbers(int n1){
            this();    // chains to default constructor
            this.n1 = n1;
            System.out.println("Inside the parametrized constructor with one parameter");
        }

        Numbers(int n1, int n2){
            this(n1);    // chains to parametrized constructor with one parameter
            this.n2=n2;
            System.out.println("Inside the parametrized constructor with two parameter");
        }

        Numbers(Numbers N){    // COPY CONSTRUCTOR
            System.out.println("Copy Constructor called");
            n1 = N.n1;
            n2 = N.n2;
        }

        void display(){
            System.out.println("n1 = "+this.n1+" n2 = "+this.n2);
        }
    }

    public static void main(String[] args){
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter first number: ");
        int n1 = sc.nextInt();
        System.out.print("Enter second number: ");
        int n2 = sc.nextInt();

        Lab3 l = new Lab3();
        Numbers c = l.new Numbers(n1, n2);
        Numbers d = c;
    }
}
```

```
        c.display();  
        d.display();  
  
        sc.close();  
    }  
}
```

OUTPUT:

```
PS C:\Users\beadi\Desktop\JAVA LAB\Practical 3> cd "c:\Users\beadi\Desktop"
Enter first number: 2
Enter second number: 3
Inside the default constructor
Inside the parametrized constructor with one parameter
Inside the parametrized constructor with two parameter
n1 = 2 n2 = 3
n1 = 2 n2 = 3
```