LAB 3

NAME: Aditya Anand

ROLL NO.: 20124009

BRANCH: IT

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| 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:

