Name: Ghodake Omkar Atul

Roll No: 30

PRN No: 72036196G

BE IT

**Assignment 5**

**Token Ring Mutual Exclusion Algorithm**

**Code:**

import java.io.\*;

import java.util.\*;

class tokenring {

    public static void main(String args[]) throws Throwable {

        Scanner scan = new Scanner(System.in);

        System.out.println("Enter the num of nodes:");

        int n = scan.nextInt();

        int m = n - 1;

        // Decides the number of nodes forming the ring

        int token = 0;

        int ch = 0, flag = 0;

        for (int i = 0; i < n; i++) {

            System.out.print(" " + i);

        }

        System.out.println(" " + 0);

        do{

            System.out.println("Enter sender:");

            int s = scan.nextInt();

            System.out.println("Enter receiver:");

            int r = scan.nextInt();

            System.out.println("Enter Data:");

            int a;

            a = scan.nextInt();

            System.out.print("Token passing:");

            for (int i = token, j = token; (i % n) != s; i++, j = (j + 1) % n) {

                System.out.print(" " + j + "->");

            }

            System.out.println(" " + s);

            System.out.println("Sender " + s + " sending data: " + a);

            for (int i = s + 1; i != r; i = (i + 1) % n) {

                System.out.println("data  " + a + " forwarded by " + i);

            }

            System.out.println("Receiver " + r + " received data: " + a +"\n");

            token = s;

            do{

                try {

                    if( flag == 1)

      System.out.print("Invalid Input!!...");

                    System.out.print("Do you want to send again?? enter 1 for Yes and 0 for No : ");

                    ch = scan.nextInt();

                    if( ch != 1 && ch != 0 )

      flag = 1;

                    else

      flag = 0;

                } catch (InputMismatchException e){

                    System.out.println("Invalid Input");

                }

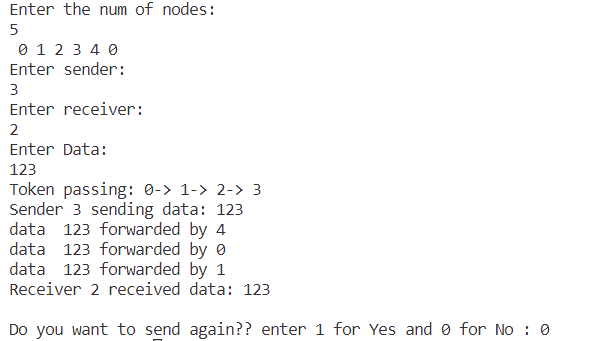
            }while( ch != 1 && ch != 0 );

        }while( ch == 1 );

    }

}

**Output:**

****