Assignment No.5

# Problem Statement:

Implement token ring based 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{

0 for No : ");

try {

if( flag == 1)

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

System.out.print("Do you want to send again?? enter 1 for Yes and

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:

