

## Practical 05

### Program :-

```
import java.util.*;

public class TokenRing{

    public static void main(String[] args){

        Scanner sc = new Scanner(System.in);

        System.out.print("Enter Number Of Nodes You Want In The Ring : ");

        int n = sc.nextInt();

        System.out.println("Ring Formed Is As Below: ");

        for(int i=0; i<n; i++){

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

        }

        System.out.println("0");

        int choice = 0;

        do{

            System.out.print("Enter Sender : ");

            int sender = sc.nextInt();

            System.out.print("Enter Receiver : ");

            int receiver = sc.nextInt();

            System.out.print("Enter Data To Send : ");

            int data = sc.nextInt();

            int token = 0;

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

            for(int i=token; i<sender; i++){

                System.out.print(" " + i + "->");
```

```

}

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

System.out.println("Sender:" + sender + " Sending Data: " + data);

for(int i=sender; i!=receiver; i = (i+1)%n){

System.out.println("Data: " + data + " Forwarded By: " + i);

}

System.out.println("Receiver: " + receiver + " Received The Data: " + data);

token = sender;

System.out.print("Do You Want To Send Data Again? If YES Enter 1, If NO Enter 0: ");

choice = sc.nextInt();

}while(choice == 1);

}

}

```

## Output :-

```

C:\Users\ITSLII_17\Desktop\DS>java TokenRing
Enter Number Of Nodes You Want In The Ring : 10
Ring Formed Is As Below:
0 1 2 3 4 5 6 7 8 9 0
Enter Sender : 3
Enter Receiver : 9
Enter Data To Send : 1001
Token Passing : 0-> 1-> 2-> 3
Sender:3 Sending Data: 1001
Data: 1001 Forwarded By: 3
Data: 1001 Forwarded By: 4
Data: 1001 Forwarded By: 5
Data: 1001 Forwarded By: 6
Data: 1001 Forwarded By: 7
Data: 1001 Forwarded By: 8
Receiver: 9 Received The Data: 1001
Do You Want To Send Data Again? If YES Enter 1, If NO Enter 0: 1
Enter Sender : 0
Enter Receiver : 2
Enter Data To Send : 01
Token Passing : 0
Sender:0 Sending Data: 1
Data: 1 Forwarded By: 0
Data: 1 Forwarded By: 1
Receiver: 2 Received The Data: 1
Do You Want To Send Data Again? If YES Enter 1, If NO Enter 0: 0

```