CODE:

TokenRing.java :

```java
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();
```

```java
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);

        }
}
```
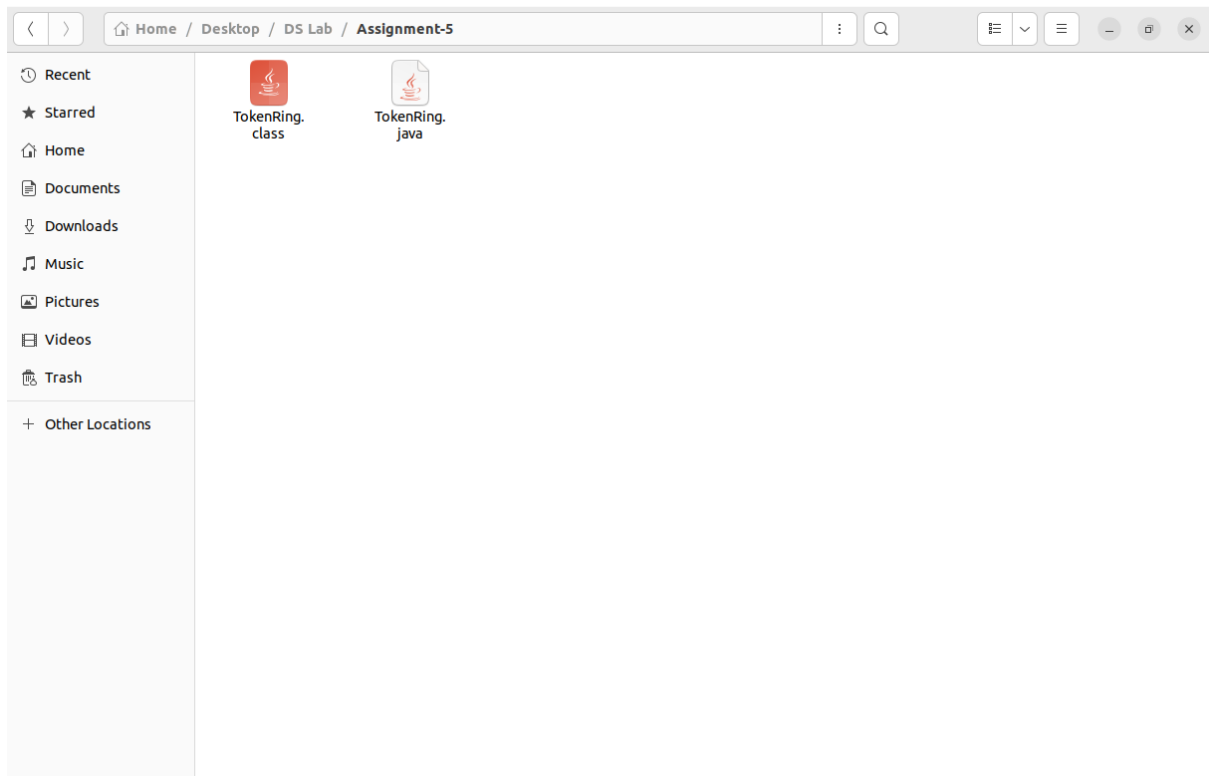
OUTPUT:


```
aatif@aatif:~/Desktop/DS Lab/Assignment-5$ ls
TokenRing.java
aatif@aatif:~/Desktop/DS Lab/Assignment-5$ javac TokenRing.java
aatif@aatif:~/Desktop/DS Lab/Assignment-5$ 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 : 2
Enter Receiver : 8
Enter Data To Send : 50
Token Passing :  0-> 1-> 2
Sender:2 Sending Data: 50
Data: 50 Forwarded By: 2
Data: 50 Forwarded By: 3
Data: 50 Forwarded By: 4
Data: 50 Forwarded By: 5
Data: 50 Forwarded By: 6
Data: 50 Forwarded By: 7
Receiver: 8 Received The Data: 50
Do You Want To Send Data Again? If YES Enter 1, If NO Enter 0: 1
Enter Sender : 5
Enter Receiver : 1
Enter Data To Send : 25
Token Passing :  0-> 1-> 2-> 3-> 4-> 5
Sender:5 Sending Data: 25
Data: 25 Forwarded By: 5
Data: 25 Forwarded By: 6
Data: 25 Forwarded By: 7
Data: 25 Forwarded By: 8
Data: 25 Forwarded By: 9
Data: 25 Forwarded By: 0
Receiver: 1 Received The Data: 25
Do You Want To Send Data Again? If YES Enter 1, If NO Enter 0: 0
aatif@aatif:~/Desktop/DS Lab/Assignment-5$
```