

```
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");

    }

}

```

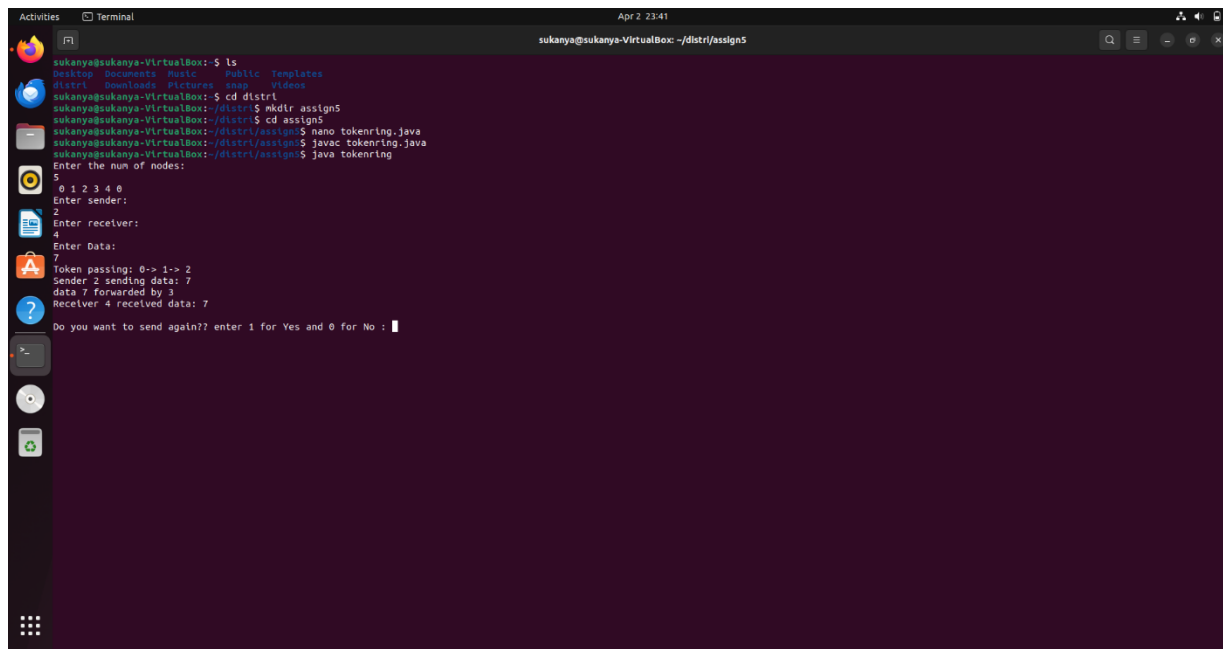
```
    }while( ch != 1 && ch != 0 );

    }while( ch == 1 );

}

}
```

- **OUTPUT:**



```
Activities Terminal Apr 2 23:41
sukanya@sukanya-VirtualBox: ~/distri/assign5

sukanya@sukanya-VirtualBox:~$ ls
Desktop  Documents  Music  Public  Templates
distri  Downloads  Pictures  snap  Videos
sukanya@sukanya-VirtualBox:~$ cd distri
sukanya@sukanya-VirtualBox:~/distri$ mkdir assign5
sukanya@sukanya-VirtualBox:~/distri$ cd assign5
sukanya@sukanya-VirtualBox:~/distri/assign5$ nano tokenring.java
sukanya@sukanya-VirtualBox:~/distri/assign5$ javac tokenring.java
sukanya@sukanya-VirtualBox:~/distri/assign5$ java tokenring
Enter the num of nodes:
5
0 1 2 3 4 0
Enter sender:
2
Enter receiver:
4
Enter Data:
7
Token passing: 0->1->2
Sender 2 sending data: 7
data 7 forwarded by 3
Receiver 4 received data: 7
Do you want to send again?? enter 1 for Yes and 0 for No : 
```