

Code:

```
package arrayexamples;
import java.util.*;
public class TokenRing {
    public static void main (String args[]) {
        Scanner sc = new Scanner (System.in);

        System.out.print("Enter the number of nodes: ");
        int n = sc.nextInt();

        // Decides the number of nodes forming the ring
        int token = 0;

        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 s = sc.nextInt();
            System.out.print("Enter receiver: ");
            int r = sc.nextInt();
            System.out.print("Enter Data: ");
            int d = sc.nextInt();
            token=0;
            System.out.print("Token passing:");

            for (int i = token; i<s;i++) {
                System.out.print(" " + i + "->");
            }
            System.out.println(" " + s);

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

            for (int i =s;i<r;i=(i+1)%n) {
                System.out.println("Data " + d + " forwarded by " + i);
            }
            System.out.println("Receiver " + r + " received data: " + d);
            token = s;
            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:

Enter the number of nodes: 5

0 1 2 3 4 0

Enter sender: 1

Enter receiver: 4

Enter Data: 200

Token passing: 0-> 1

Sender 1 sending data: 200

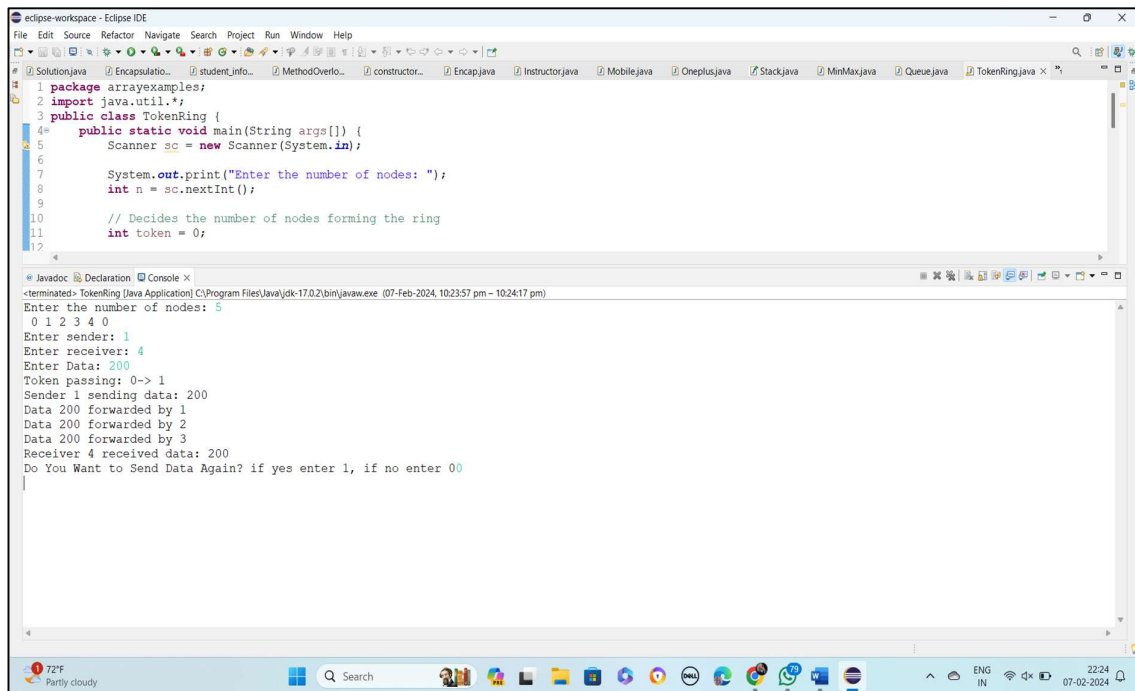
Data 200 forwarded by 1

Data 200 forwarded by 2

Data 200 forwarded by 3

Receiver 4 received data: 200

Do You Want to Send Data Again? if yes enter 1, if no enter 00



The screenshot shows the Eclipse IDE with a Java file named `TokenRing.java` open. The code implements a token ring simulation. The console output shows the program's execution, including user input and the sequence of data forwarding between nodes.

```
1 package arrayexamples;
2 import java.util.*;
3 public class TokenRing {
4     public static void main(String args[]) {
5         Scanner sc = new Scanner(System.in);
6
7         System.out.print("Enter the number of nodes: ");
8         int n = sc.nextInt();
9
10        // Decides the number of nodes forming the ring
11        int token = 0;
12    }
13 }
```

Console Output:

```
<terminated> TokenRing [Java Application] C:\Program Files\Java\jdk-17.0.2\bin\javaw.exe (07-Feb-2024, 10:23:57 pm - 10:24:17 pm)
Enter the number of nodes: 5
0 1 2 3 4 0
Enter sender: 1
Enter receiver: 4
Enter Data: 200
Token passing: 0-> 1
Sender 1 sending data: 200
Data 200 forwarded by 1
Data 200 forwarded by 2
Data 200 forwarded by 3
Receiver 4 received data: 200
Do You Want to Send Data Again? if yes enter 1, if no enter 00
```