



*Institut national des sciences appliquées et de technologies*

# Compte rendu

TP1

## Fondements des systèmes répartis

Réalisé par :

**Ben Aribia Ramez**

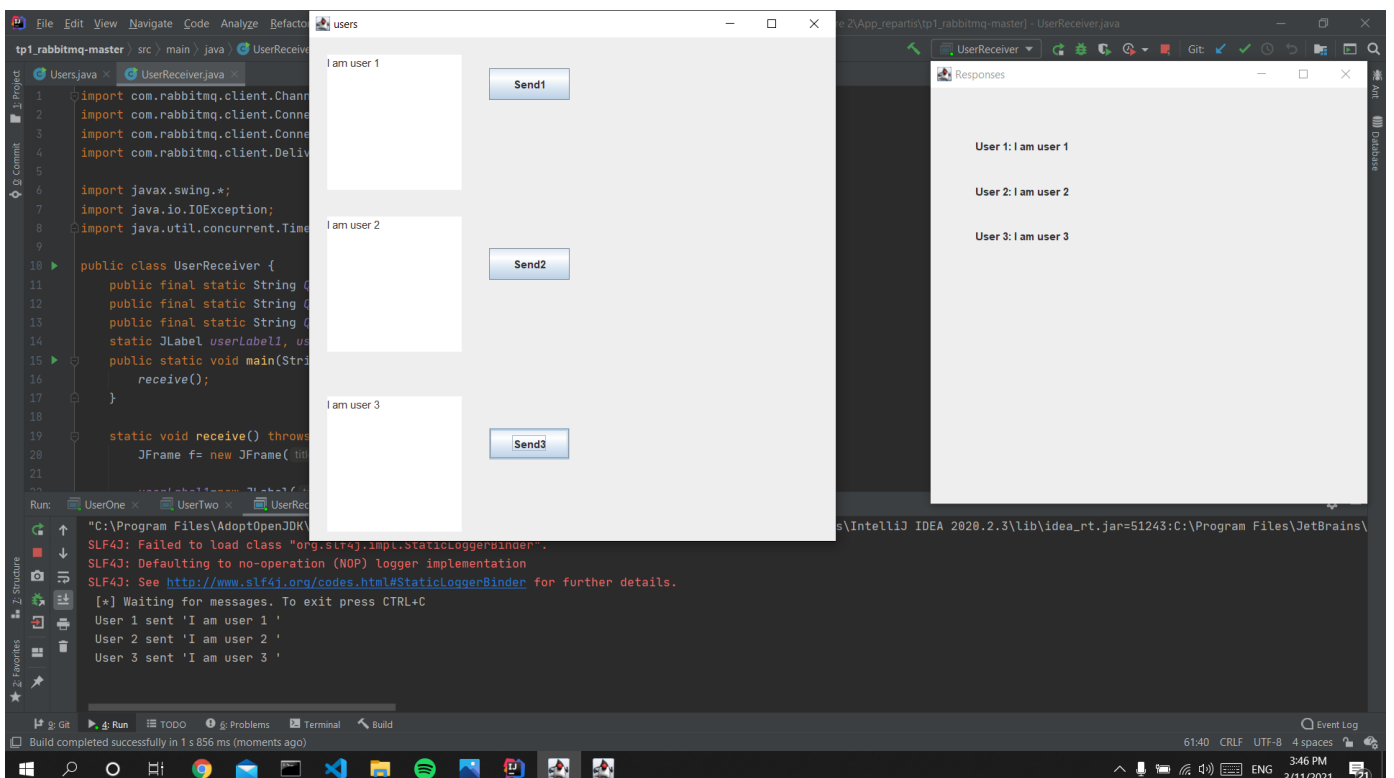
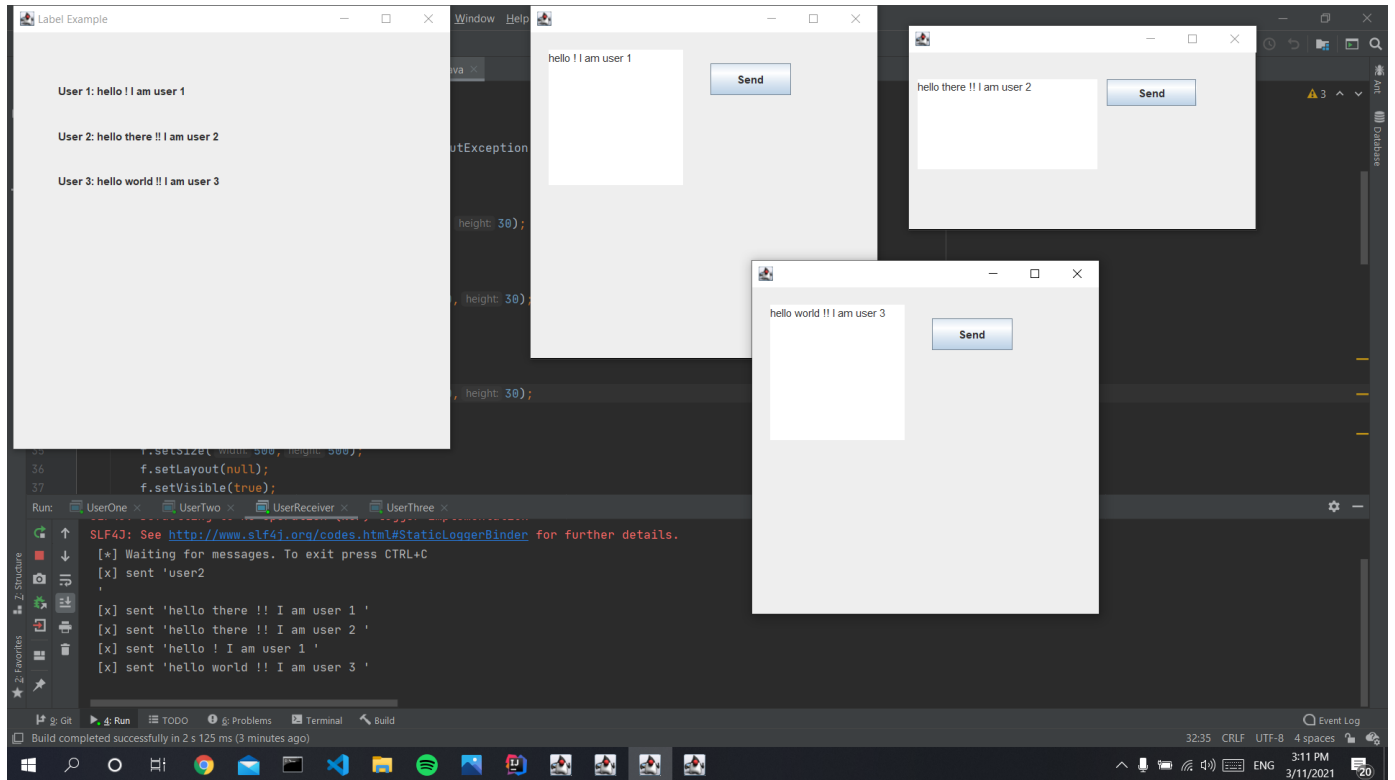
**Hamdi Mahdi**

GL 3/2

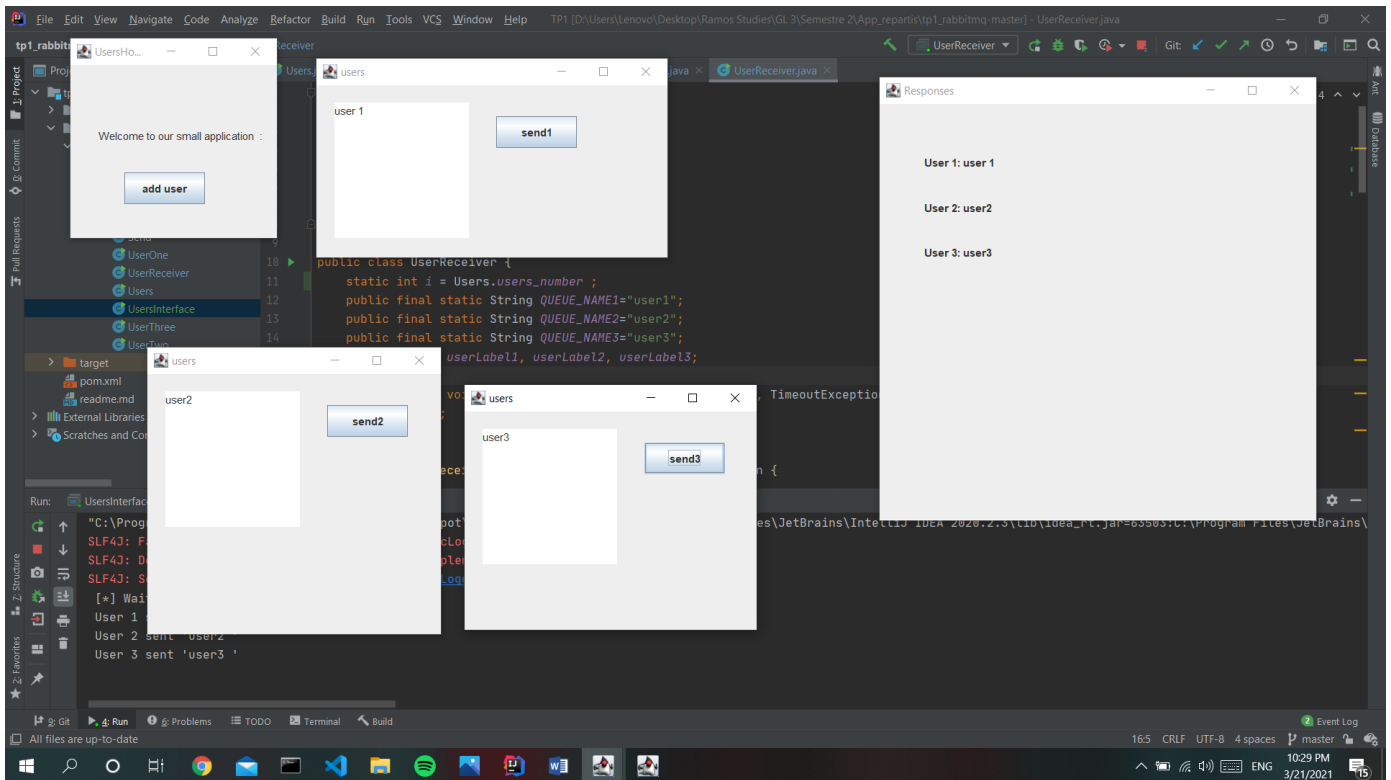
Année universitaire :

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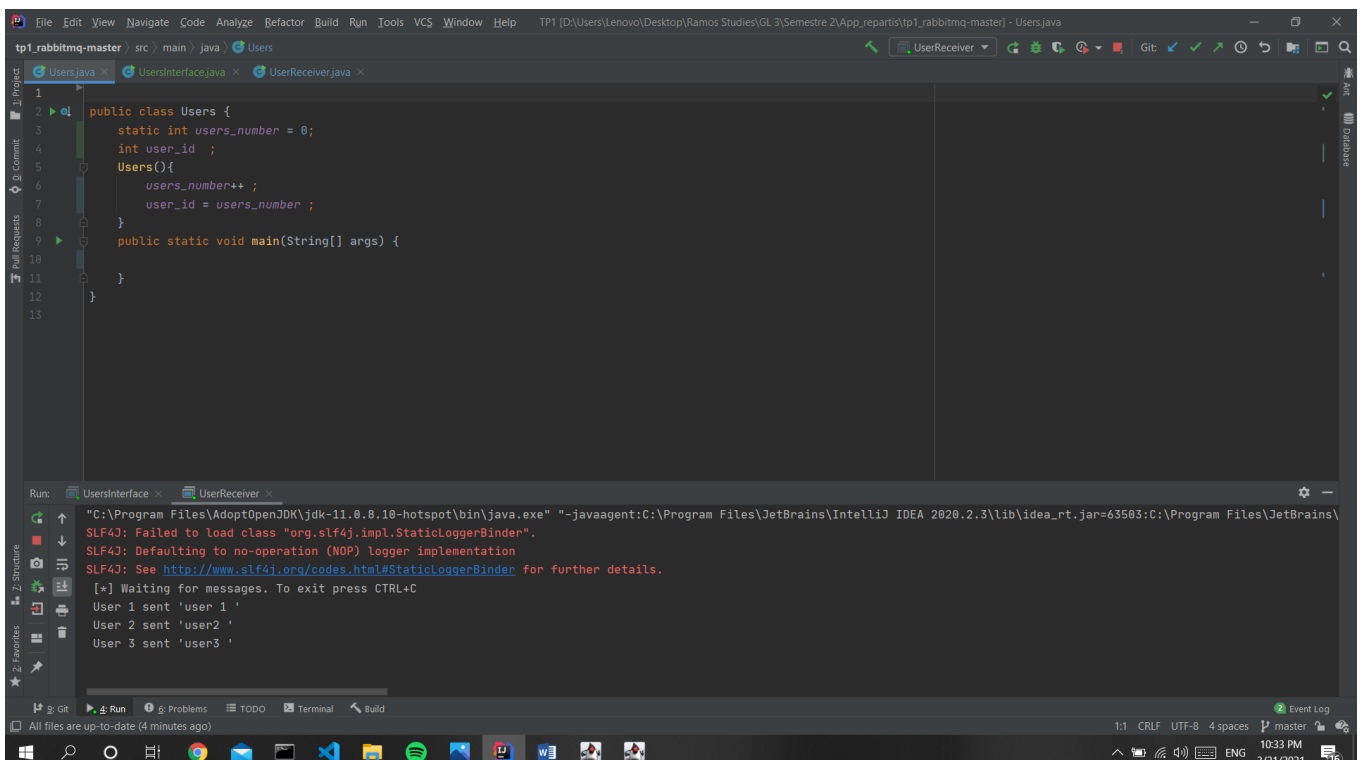
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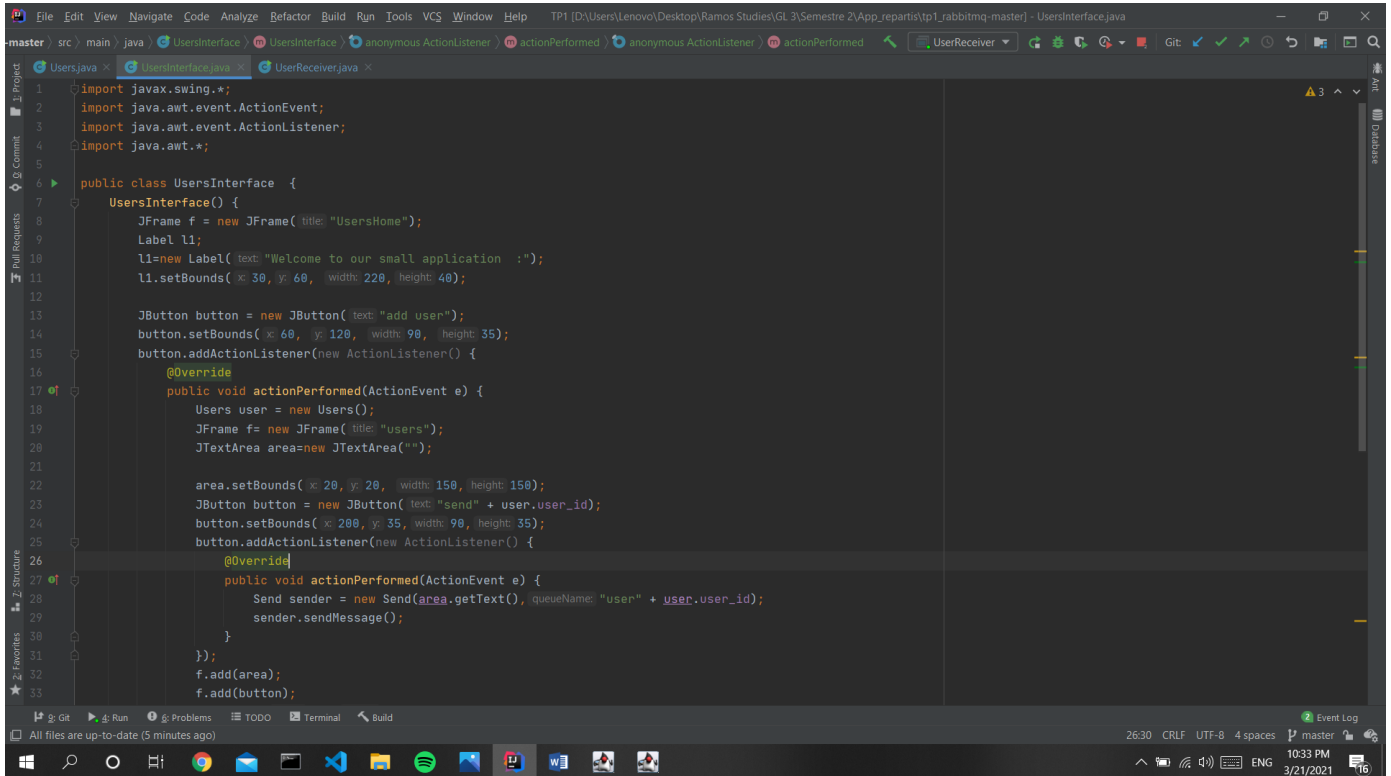
3)



- User.java :



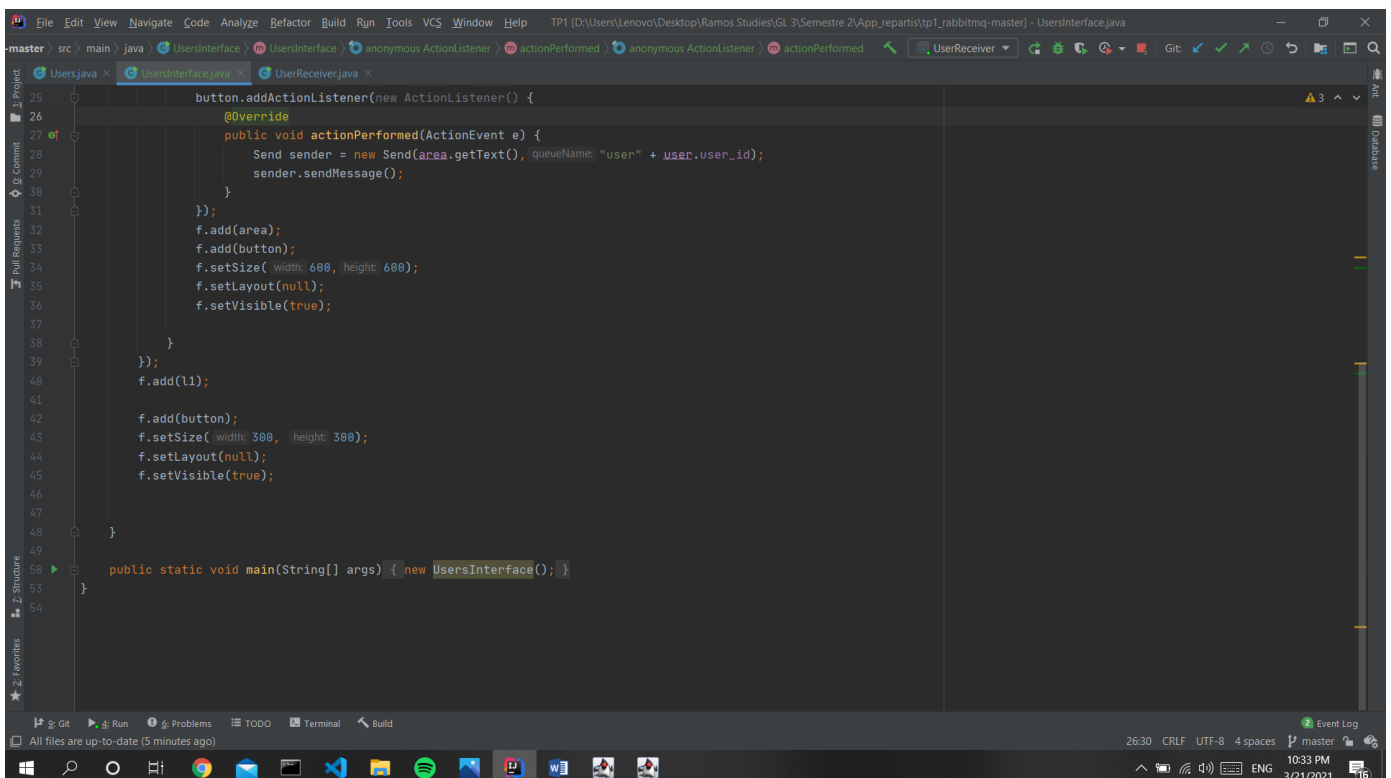
- UsersInterface.java :



```

1 import javax.swing.*;
2 import java.awt.event.ActionEvent;
3 import java.awt.event.ActionListener;
4 import java.awt.*;
5
6 public class UsersInterface {
7     UsersInterface() {
8         JFrame f = new JFrame("UsersHome");
9         Label l1;
10        l1=new Label( text: "Welcome to our small application :");
11        l1.setBounds( x: 30, y: 60, width: 220, height: 40);
12
13        JButton button = new JButton( text: "add user");
14        button.setBounds( x: 60, y: 120, width: 90, height: 35);
15        button.addActionListener(new ActionListener() {
16            @Override
17            public void actionPerformed(ActionEvent e) {
18                Users user = new Users();
19                JFrame f= new JFrame( title: "users");
20                JTextArea area=new JTextArea("");
21
22                area.setBounds( x: 20, y: 20, width: 150, height: 150);
23                JButton button = new JButton( text: "send" + user.user_id);
24                button.setBounds( x: 200, y: 35, width: 90, height: 35);
25                button.addActionListener(new ActionListener() {
26                    @Override
27                    public void actionPerformed(ActionEvent e) {
28                        Send sender = new Send( area.getText(), queueName: "user" + user.user_id);
29                        sender.sendMessage();
30                    }
31                });
32                f.add(area);
33                f.add(button);
34            }
35        });
36    }
37
38    public static void main(String[] args) { new UsersInterface(); }
39 }

```

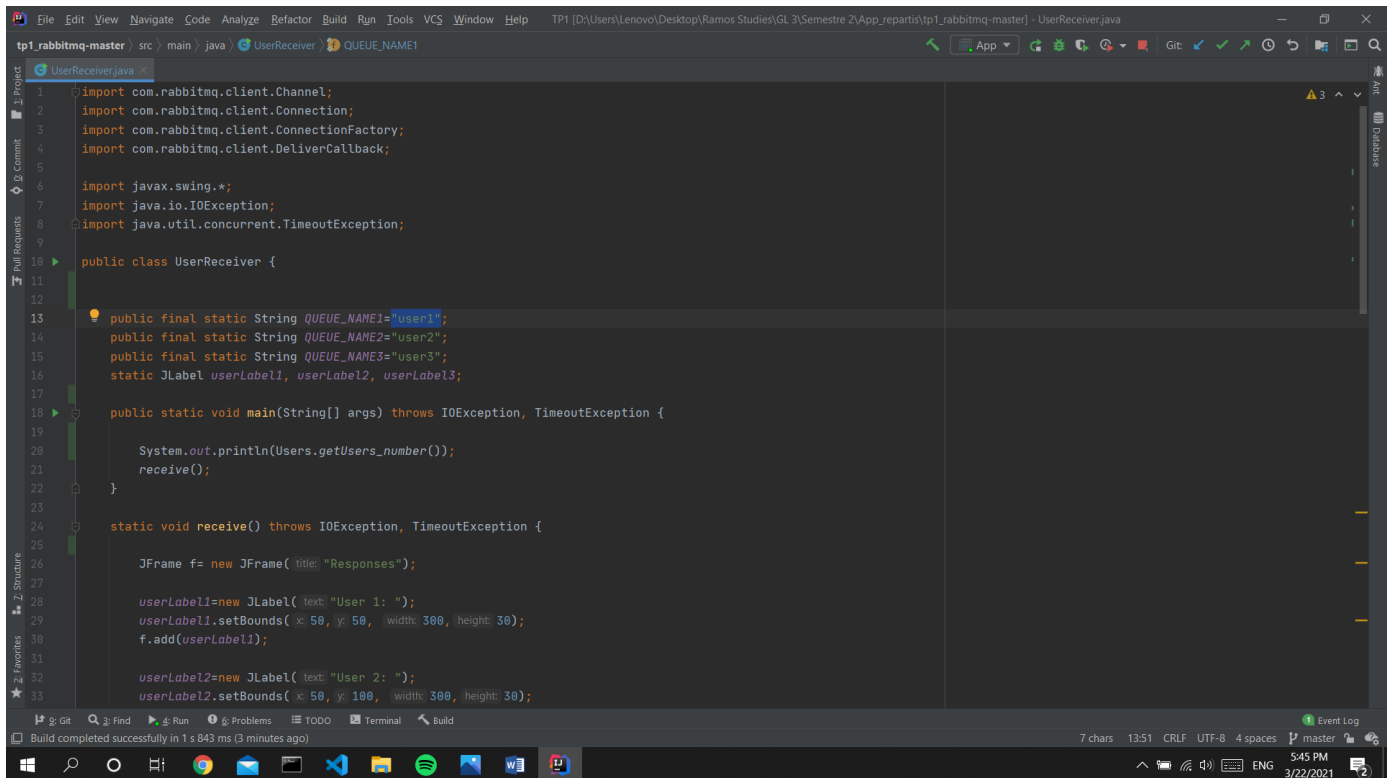


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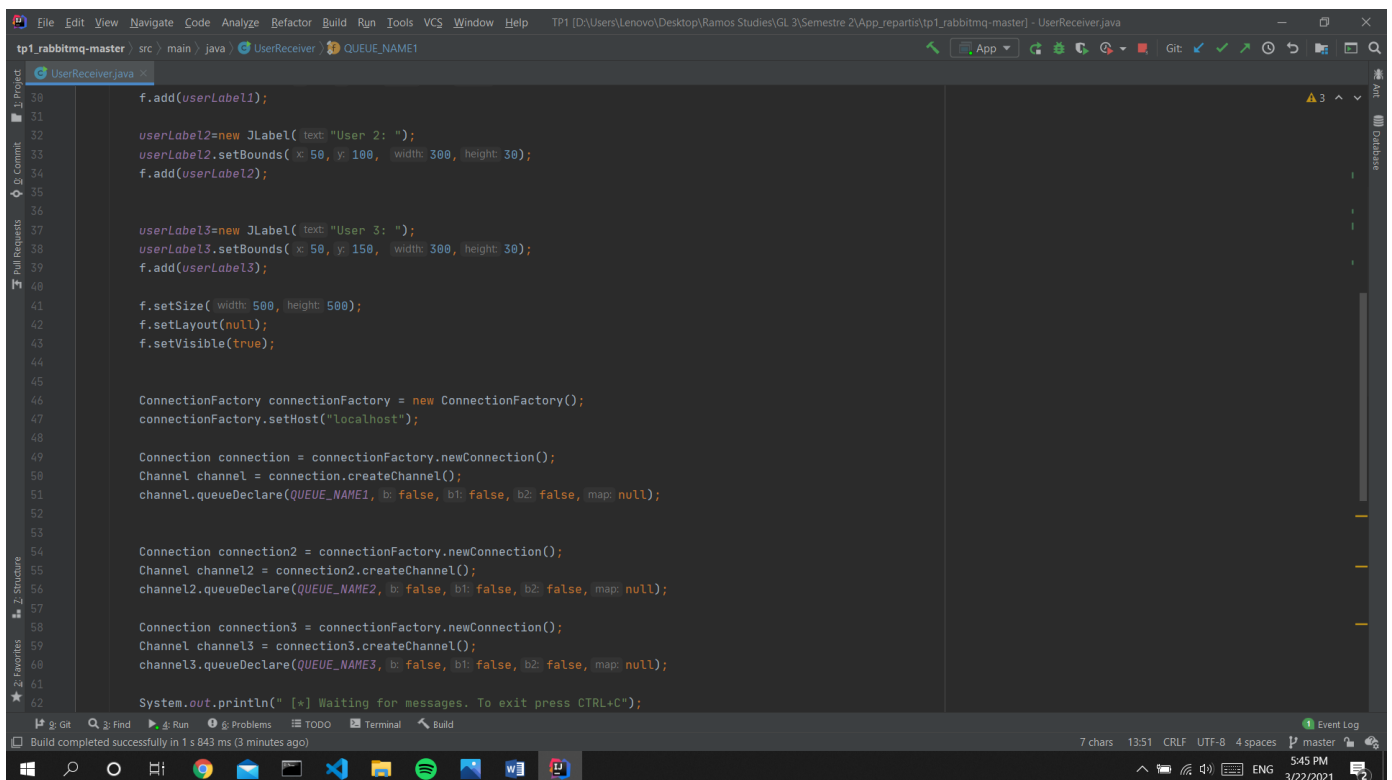
25        button.addActionListener(new ActionListener() {
26            @Override
27            public void actionPerformed(ActionEvent e) {
28                Send sender = new Send( area.getText(), queueName: "user" + user.user_id);
29                sender.sendMessage();
30            }
31        });
32        f.add(area);
33        f.add(button);
34        f.setSize( width: 600, height: 600);
35        f.setLayout( null);
36        f.setVisible( true);
37    }
38    }
39    });
40    f.add(l1);
41
42    f.add(button);
43    f.setSize( width: 300, height: 300);
44    f.setLayout( null);
45    f.setVisible( true);
46
47
48 }
49
50 public static void main(String[] args) { new UsersInterface(); }
51 }
52
53 }
54
55 }

```

- UseReceiver.java :



```
1 import com.rabbitmq.client.Channel;
2 import com.rabbitmq.client.Connection;
3 import com.rabbitmq.client.ConnectionFactory;
4 import com.rabbitmq.client.DeliverCallback;
5
6 import javax.swing.*;
7 import java.io.IOException;
8 import java.util.concurrent.TimeoutException;
9
10 public class UserReceiver {
11
12
13     public final static String QUEUE_NAME1="user1";
14     public final static String QUEUE_NAME2="user2";
15     public final static String QUEUE_NAME3="user3";
16     static JLabel userLabel1, userLabel2, userLabel3;
17
18     public static void main(String[] args) throws IOException, TimeoutException {
19
20         System.out.println(Users.getUsers_number());
21         receive();
22     }
23
24     static void receive() throws IOException, TimeoutException {
25
26         JFrame f= new JFrame( title: "Responses");
27
28         userLabel1=new JLabel( text: "User 1: ");
29         userLabel1.setBounds( x: 50, y: 50, width: 300, height: 30);
30         f.add(userLabel1);
31
32         userLabel2=new JLabel( text: "User 2: ");
33         userLabel2.setBounds( x: 50, y: 100, width: 300, height: 30);
```



```
34         f.add(userLabel2);
35
36         userLabel3=new JLabel( text: "User 3: ");
37         userLabel3.setBounds( x: 50, y: 150, width: 300, height: 30);
38         f.add(userLabel3);
39
40
41         f.setSize( width: 500, height: 500);
42         f.setLayout(null);
43         f.setVisible(true);
44
45
46         ConnectionFactory connectionFactory = new ConnectionFactory();
47         connectionFactory.setHost("localhost");
48
49         Connection connection = connectionFactory.newConnection();
50         Channel channel = connection.createChannel();
51         channel.queueDeclare(QUEUE_NAME1, b: false, b1: false, b2: false, map: null);
52
53
54         Connection connection2 = connectionFactory.newConnection();
55         Channel channel2 = connection2.createChannel();
56         channel2.queueDeclare(QUEUE_NAME2, b: false, b1: false, b2: false, map: null);
57
58         Connection connection3 = connectionFactory.newConnection();
59         Channel channel3 = connection3.createChannel();
60         channel3.queueDeclare(QUEUE_NAME3, b: false, b1: false, b2: false, map: null);
61
62         System.out.println(" [*] Waiting for messages. To exit press CTRL+C");
```

```
tp1_rabbitmq-master | src > main > java > UserReceiver > QUEUE_NAME1
UserReceiver.java
60 channel3.queueDeclare(QUEUE_NAME3, b: false, b1: false, b2: false, map: null);
61
62 System.out.println(" [*] Waiting for messages. To exit press CTRL+C");
63
64 DeliverCallback deliverCallback = (consumerTag, delivery) -> {
65     String receivedMessage = new String(delivery.getBody(), charsetName: "UTF-8");
66     userLabel1.setText("User 1: "+receivedMessage);
67     System.out.println(" User 1 sent '"+receivedMessage+" ");
68 };
69 channel.basicConsume(QUEUE_NAME1, b: true, deliverCallback, consumerTag -> {});
70
71 DeliverCallback deliverCallback2 = (consumerTag, delivery) -> {
72     String receivedMessage = new String(delivery.getBody(), charsetName: "UTF-8");
73     userLabel2.setText("User 2: "+receivedMessage);
74     System.out.println(" User 2 sent '"+receivedMessage+" ");
75 };
76 channel.basicConsume(QUEUE_NAME2, b: true, deliverCallback2, consumerTag -> {});
77
78 DeliverCallback deliverCallback3 = (consumerTag, delivery) -> {
79     String receivedMessage = new String(delivery.getBody(), charsetName: "UTF-8");
80     userLabel3.setText("User 3: "+receivedMessage);
81     System.out.println(" User 3 sent '"+receivedMessage+" ");
82 };
83 channel.basicConsume(QUEUE_NAME3, b: true, deliverCallback3, consumerTag -> {});
84
85 }
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