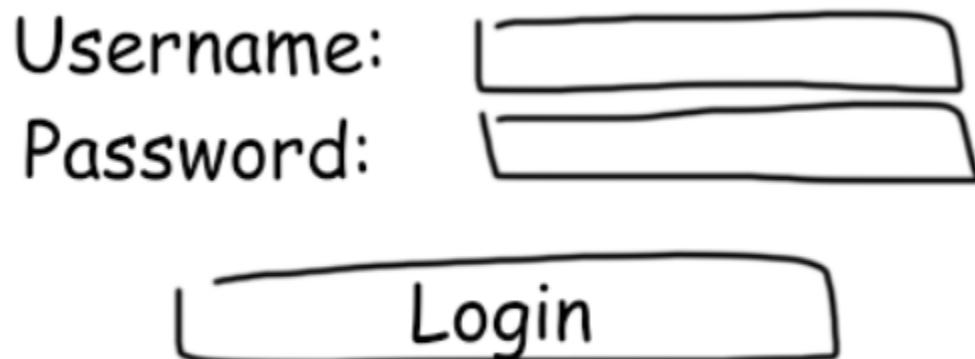# P20.6 Design Document

Make a sketch of your desired component layout.

JFrame 1:
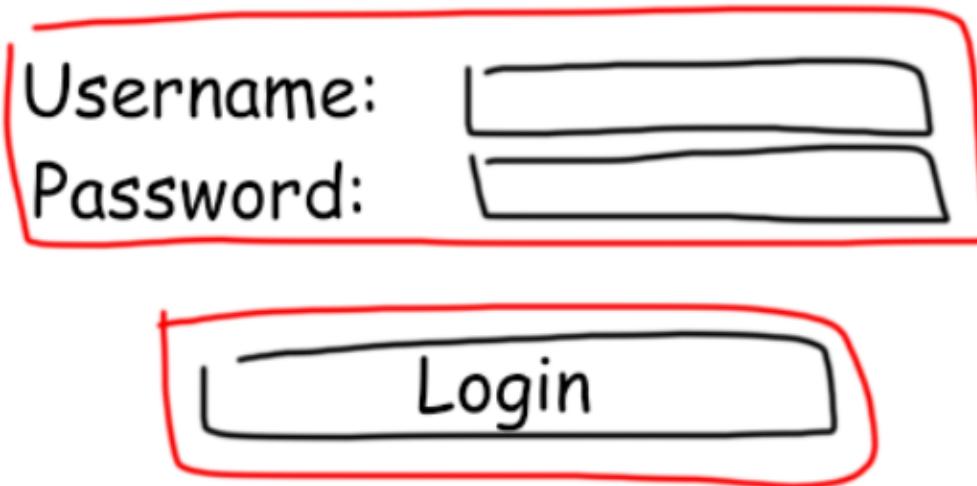
Username: [_____]
Password: [_____]

[Login   ]

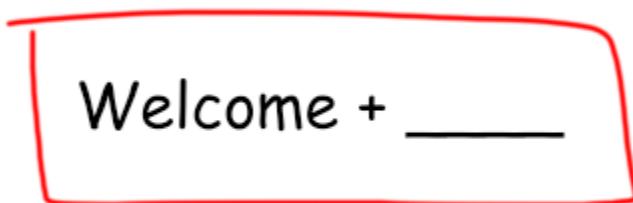JFrame 2:

Welcome + _____

Find groupings of adjacent components with the same layout.

JFrame 1:

JFrame 2:

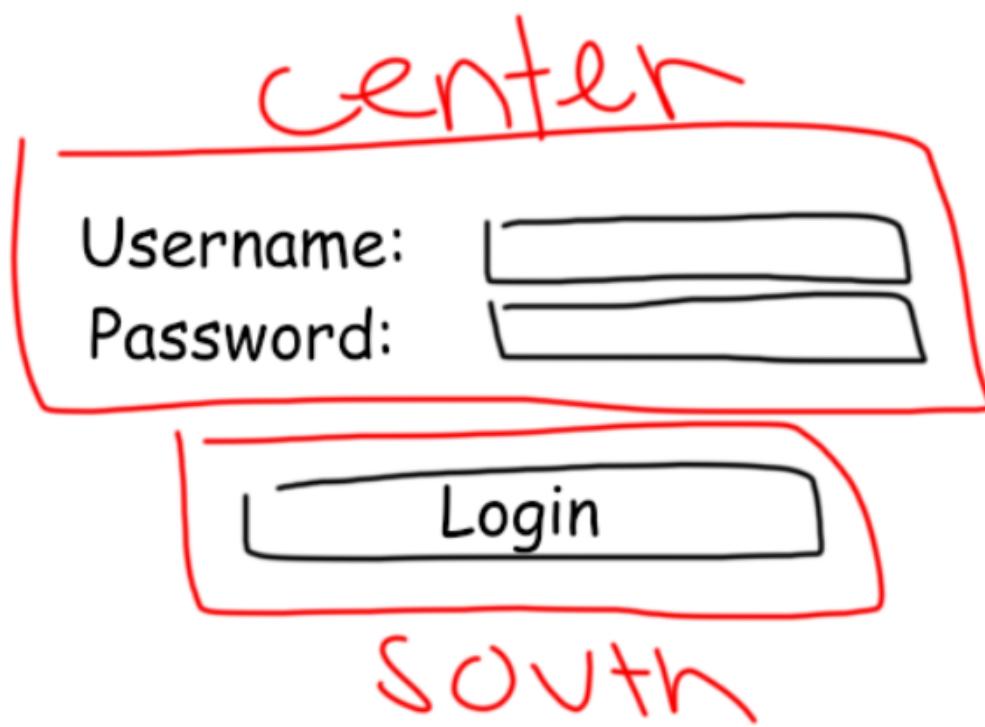
Identify layouts for each group.

JFrame 1:
The Jlabels and the JTextfields are in a panel with a layout of (2,2) while the login is in a panel with a layout of (1,1)

JFrame 2:

There's only one element in the JFrame for a successful login, the welcoming message which is in a panel with a layout of (1,1)

Group the groups together.

JFrame 1:

center

| Username: | [   ] |
| Password: | [   ] |

[Login   ]

South

JFrame 2:

center

| Welcome + ____ |

Generate code

```java
/////For Jframe 1
JFrame frame;
JPanel panel;
JPanel panel2;
JTextField username;
JPasswordField password;
JButton loginbutton;
//inside the constructor
frame = new JFrame();
panel = new JPanel();
panel2 = new JPanel();
JLabel usernameLabel = new JLabel("Username: ");
JLabel passwordLabel = new JLabel("Password: ");
username = new JTextField();
password = new JPasswordField();
loginbutton = new JButton("Login");
//adding elements
panel.add(usernameLabel);
panel.add(username);
panel.add(passwordLabel);
panel.add(password);
panel2.add(loginbutton);

//modifying the frame and the panel
frame.setVisible(true);
frame.setSize(300,150);
frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
panel.setBorder(BorderFactory.createEmptyBorder(30,30,5,30));
panel2.setBorder(BorderFactory.createEmptyBorder(0,30,10,30));
panel.setLayout(new GridLayout(2,2));
panel2.setLayout(new GridLayout(1,1));
frame.add(panel, BorderLayout.CENTER);
frame.add(panel2, BorderLayout.SOUTH);

/////for Jframe 2
JFrame success = new JFrame();
JPanel successPanel =  new JPanel();
JLabel loginMessage = new JLabel("Welcome " + usernameVar);
//gets rid of Jframe 1
frame.dispose();
//adds the Welcome Message
successPanel.add(loginMessage);
success.setVisible(true);
success.setSize(200,150);
success.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
successPanel.setBorder(BorderFactory.createEmptyBorder(30,30,5,30));
success.add(successPanel, BorderLayout.CENTER);
```