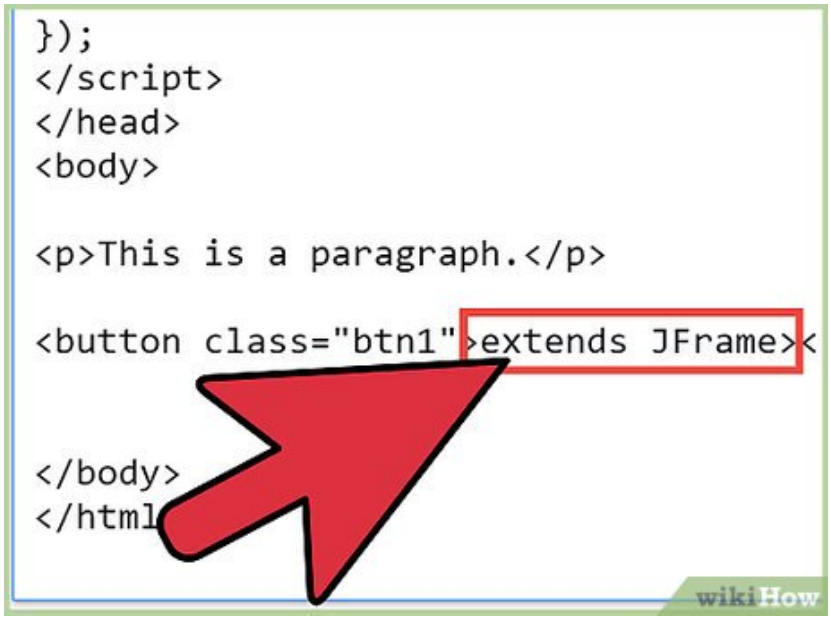
How to Create a Swing GUI in Java

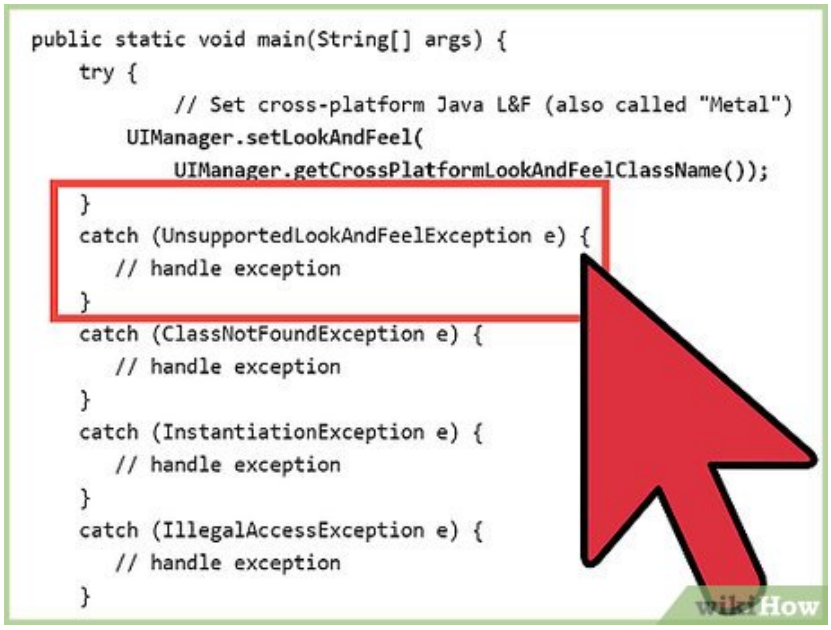
This article explains how to create simple application that is shown in the figure on the right, giving its source code as well. To place buttons, text labels and other components on the program window, you need to understand about JPanel....

Method 1 of 2:

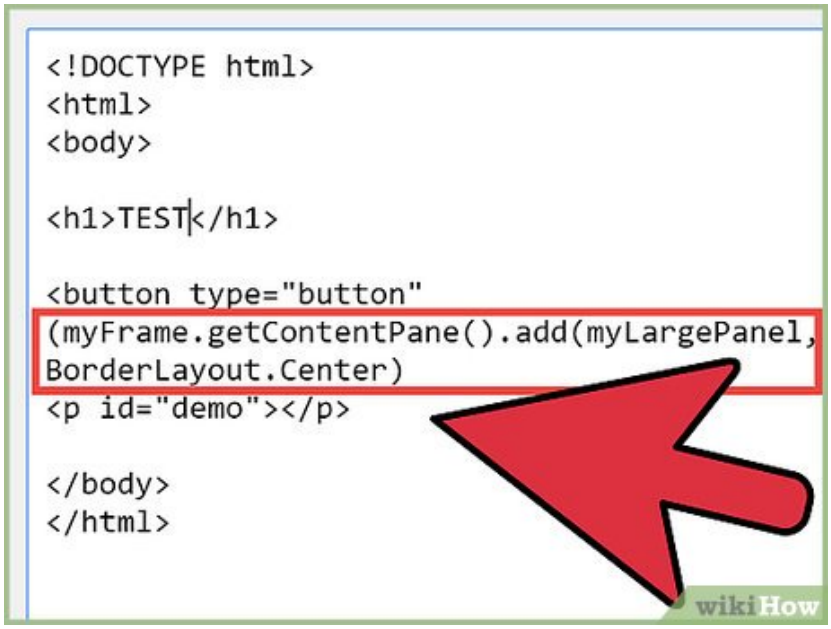
Making the Overall Frame

1. 

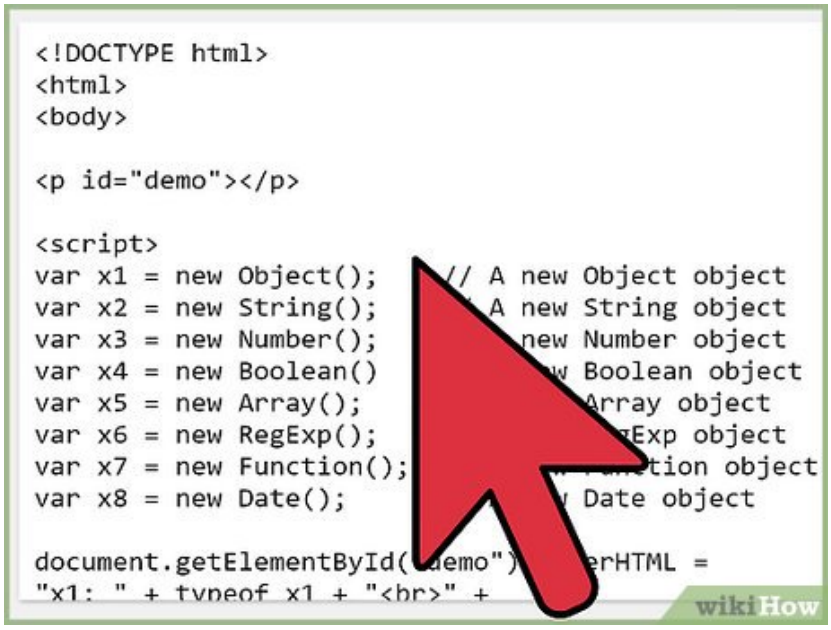
Create a class that extends the *JFrame* class. This class will hold all of your GUI components, such as buttons and text fields.

2. 

Plan the overall layout of your first application. A good start could be a central panel with *BorderLayout* with another panel at the bottom (*BorderLayout.South*). This second panel may have the *FlowLayout* and contain several buttons, check boxes and other similar controls. Finally, place the big *JTextArea* into the center of the central component. You will be able to use its *getText()* and *setText()* methods to do some text-based interaction with the user.

3. 

Write constructor to your class. This constructor must create all panels and components you plan, place them properly into each other and add the final panel the "holds all" to you frame *(myFrame.getContentPane().add(myLargePanel, BorderLayout.Center).*

4. 

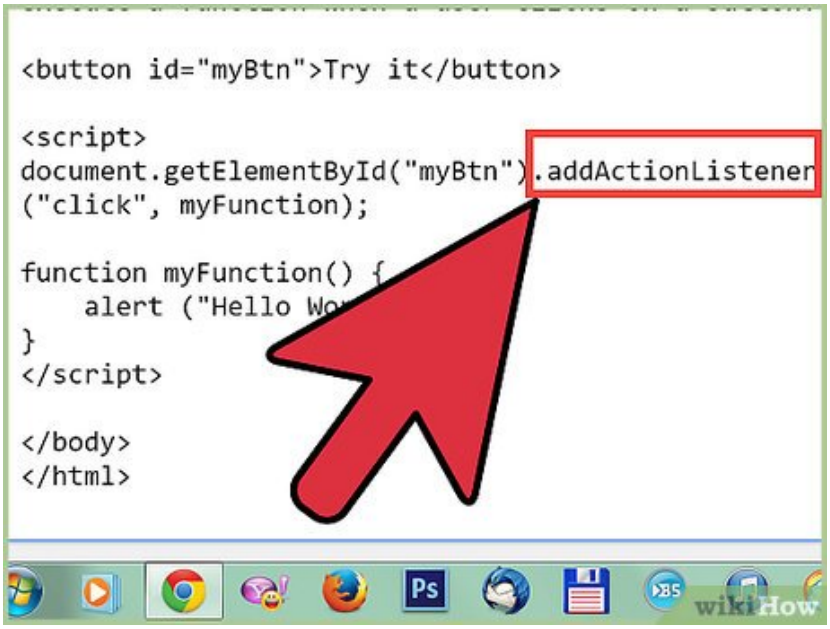
Write the main method which will be the program's entry point. In this method, create an instance of your frame, set the initial size and location (use *.setSize(x,y)* and *.setLocation(width, height)*) and make it to appear on the screen by calling *.setVisible(true).*

Method 2 of 2:

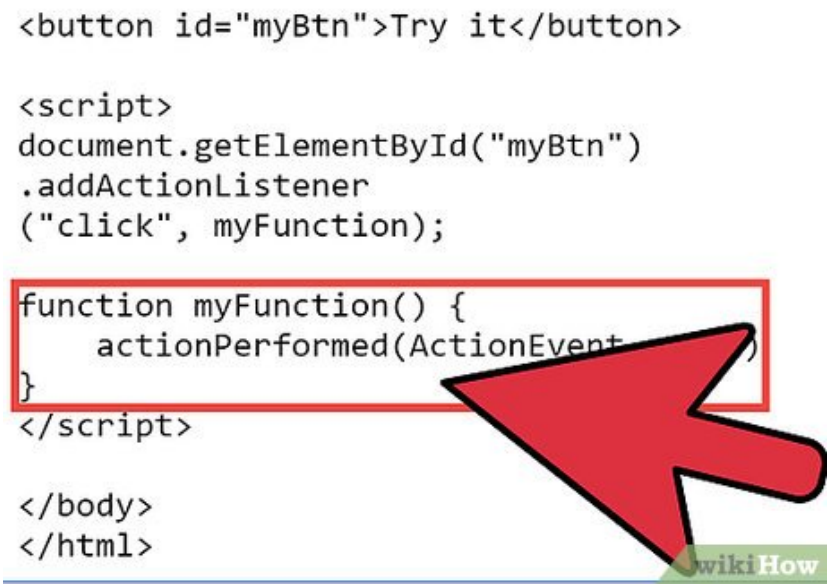
Programming responses to the user actions

1. 

Make your frame implement the *ActionListener* interface. This will allow your class to listen to components' activities.

2. 

For every button, check box or other control that you have created, invoke its method . *addActionListener*, passing your frame (*this*) as parameter.

3. 

Override ActionListener's abstract method, *actionPerformed(ActionEvent event).* In this method, you should put if statements checking where does the action event come from. This if statement should have a condition that says something like "*if (event.getSource() == button1*)". This checks where the event came from and if it came from your button. Inside the if statement, do whatever needs to be done when your button is pressed.

4. 

JTextArea has a method *.setText("myText")* which seems good as the way to program some visible response on your action.