

## Java Keyboard Events

### C&G Criteria 5.4.3

Keyboard input can be monitored from a component such as a `TextArea` or `TextField`. This will allow a set key such as space or return to fire an event. Not surprisingly a listener interface is used with corresponding methods.

```
import java.applet.Applet;
import java.awt.*;
import java.awt.event.*;

public class Keys extends Applet implements KeyListener
{
    TextArea myText;
    TextField output;
    public void init()
    {
        myText = new TextArea(10,20);
        add(myText);
        myText.addKeyListener(this);
        output = new TextField(5);
        add(output);
        output.setEditable(false);
        //all 3 of the following methods must be present
        public void keyPressed(KeyEvent e)
        {
        }
        public void keyTyped( KeyEvent e )
        //can't get the keyCode from keyTyped
        //it will return to actual key typed
        public void keyReleased(KeyEvent e)
        {
        }
    }
}
```

Note that when a letter is the result of more than 1 key press, such as @ Java is able to determine the resulting character.

The character typed will be returned by - `e.getKeyChar()`

If a specific character code is to be looked for use - `e.getKeyCode()`, this will not work with `keyTyped`.

- Fill out the above program to display the key code and character typed within the `TextArea` in the `TextField`.
- To show the difference between `keyReleased` and `keyPressed` have the `TextField` Background change colour with each event.
- Fire an event when return is pressed such as changing the `TextArea` Background colour.