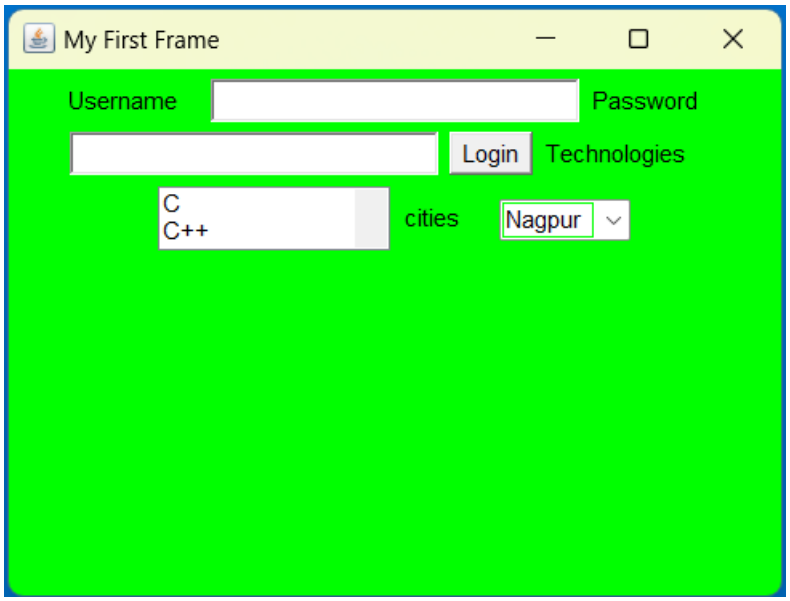
//Creating Frame using Frame object

```
package com.gui.program;

import java.awt.*;

public class FrameDemo {

public static void main(String[] args) {

Frame f = new Frame();

f.setVisible(true);

f.setBackground(Color.green);

f.setSize(400,300);

f.setTitle("My First Frame");

f.setLayout(new FlowLayout());

Label l1 = new Label("Username");

Label l2 = new Label("Password");

TextField t1 = new TextField(20);

TextField t2 = new TextField(20);

t2.setEchoChar('*');

Button b =new Button ("Login");

Label l3 = new Label("Technologies ");

Label l4 = new Label("cities ");

List ll = new List(2,true);

ll.add("C");

ll.add("C++");

ll.add("Java");

Choice c = new Choice();

c.add("Nagpur");
```

```
c.add("Pune");

c.add("Goa");

f.add(l1);

f.add(t1);

f.add(l2);

f.add(t2);

f.add(b);

f.add(l3);

f.add(l1);

f.add(l4);

f.add(c);

}

}
```

Output:



//Event handling

//WindowListener

```
package com.gui.program;


import java.awt.Color;
import java.awt.Frame;
import java.awt.event.WindowAdapter;
import java.awt.event.WindowEvent;
import java.awt.event.WindowListener;
class MyFrame extends Frame{


     MyFrame()
     {
          this.setVisible(true);
          this.setSize(700,400);
          this.setBackground(Color.cyan);
          this.addWindowListener(new WindowAdapter()
          {
               public void windowClosing(WindowEvent e) {
                         System.exit(0);
               }});



     }
```

```
}
public class WinodwListenerDemo {
	public static void main(String[] args) {
		MyFrame f = new MyFrame();
	}

}
```

Output:

Window Closing

// MouseListener

```
package com.gui.program;

import java.awt.Color;
import java.awt.FlowLayout;
import java.awt.Frame;
import java.awt.event.MouseEvent;
import java.awt.event.MouseListener;

class MouseListenerImp implements MouseListener{

	@Override
	public void mouseClicked(MouseEvent e) {

		System.out.println("Mouse Clicked  [ "+e.getX()+","+e.getY()+"]");
	}

	@Override
```

```
	public void mousePressed(MouseEvent e) {
		System.out.println("Mouse Pressed  [ "+e.getX()+","+e.getY()+"]");
	}

	@Override
	public void mouseReleased(MouseEvent e) {
		System.out.println("Mouse Released  [ "+e.getX()+","+e.getY()+"]");

	}

	@Override
	public void mouseEntered(MouseEvent e) {
		System.out.println("Mouse Entered  [ "+e.getX()+","+e.getY()+"]");
	}

	@Override
	public void mouseExited(MouseEvent e) {
		System.out.println("Mouse Exited  [ "+e.getX()+","+e.getY()+"]");
	}

}

class MyFrame1 extends Frame
{
	MyFrame1()
	{
		this.setVisible(true);
		this.setSize(700,400);
		this.setBackground(Color.orange);
		this.setLayout(new FlowLayout());
```

```
                this.addMouseListener(new MouseListenerImp());

        }
}
public class MouseListenerDemo {

        public static void main(String[] args) {

                MyFrame1 mf = new MyFrame1();
        }

}
```

Output:

Mouse Entered [350,54]

Mouse Exited [698,134]

Mouse Entered [692,138]

Mouse Exited [693,137]

Mouse Entered [662,222]

Mouse Exited [857,324]

Mouse Entered [670,324]

Mouse Pressed [350,165]

Mouse Released [350,165]

Mouse Clicked [350,165]

Mouse Pressed [237,168]

// KeyListener

```
package com.gui.program;

import java.awt.Frame;
import java.awt.event.KeyEvent;
import java.awt.event.KeyListener;

class KeyListenerImpl implements KeyListener{

	@Override
	public void keyTyped(KeyEvent e) {

		System.out.println("Key Typed : "+e.getKeyChar());
	}

	@Override
	public void keyPressed(KeyEvent e) {
		System.out.println("Key Pressed : "+e.getKeyChar());
	}

	@Override
	public void keyReleased(KeyEvent e) {
		System.out.println("Key Released  : "+e.getKeyChar());
	}


}
class MyFrame2 extends Frame
{
```

```
	MyFrame2()
	{
		this.setVisible(true);
		this.setSize(400,300);
		this.addKeyListener(new KeyListenerImpl());

	}
}

public class keyListenerDemo {

	public static void main(String[] args) {

		//MyFrame2 mf = new MyFrame2();
		new MyFrame2();  // anonymous object or Nameless object
	}

}
```

```
Output:
Key Pressed : d
Key Typed : d
Key Pressed : f
Key Typed : f
Key Released : d
Key Released : f
Key Pressed : f
Key Typed : f
Key Pressed : d
```

// Swing

```
package com.gui.program;

import javax.swing.JFrame;

public class swingDemo {

public static void main(String[] args) {

JFrame f = new JFrame();

f.setVisible(true);

f.setSize(300,300);
```