

Course Name: A Level (2nd Sem)

Topic: AWT(part 4)

Subject: JAVA

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AWT Checkboxgroup(RadioButton):

```
import java.awt.*;
import java.awt.event.WindowAdapter;
import java.awt.event.WindowEvent;
public class R1
{
    public static void main(String[] args)
    {
        Frame f = new Frame();
        f.setLayout(new GridLayout(0,1));
        CheckboxGroup group = new CheckboxGroup();
        f.add(new Checkbox("jAVA", group, true));
        f.add(new Checkbox("Python", group, false));
        f.add(new Checkbox("c", group, false));
        f.add(new Checkbox("c++", group, false));
        f.pack();
        f.addWindowListener(new WindowAdapter() {
            public void windowClosing(WindowEvent e)
            {
                System.exit(0);
            }
        });
        f.setVisible(true);
    }
}
```

Grid layout divides frame into row & column, here 0 rows & 1 column

This event is used for closing the frame on clicking close button

AWT Choice(dropdown):

```
import java.awt.*;
import java.awt.event.*;
class ChoiceAction extends Frame
{
    Choice c; Label l;
public ChoiceAction()
{
    // Set frame properties
    setTitle("Choice");
    setSize(400,400);
    setLayout(new FlowLayout());
    setLocationRelativeTo(null);
    setVisible(true);
    // Create choice
    c=new Choice();
    // Create label
    l=new Label();
    // Add items
    c.add("java");
    c.add("c");
    c.add("c++");
    c.add("python");
    c.add("ruby");
    c.add("swift");
add(c);
// Add label
add(l);
// Add item listener
c.addItemListener(new ItemListener(){
    public void itemStateChanged(ItemEvent ie)
    {
        l.setText("You selected "+c.getSelectedItem());
    }
});
}
public static void main(String args[]) {
    new ChoiceAction();
} }
```

AWT Colors,font Example1:

We can change colors, font style, size of any text in AWT.

```
import java.awt.*;
import java.awt.event.WindowAdapter;
import java.awt.event.WindowEvent;

public class AF extends Frame {
    public void paint(Graphics g) {
        Font f = new Font("Monospaced", Font.ITALIC, 12);
        g.setFont(f);
        g.drawString("Font Particulars: " + g.getFont(), 15, 60);
        g.drawString("Font Name: " + f.getFontName(), 15, 100);
        g.drawString("Font Style: " + f.getStyle(), 15, 75);
        g.drawString("Font Size: " + f.getSize(), 15, 100);

        g.drawString("isBold(): " + f.isBold(), 15, 120);
        g.drawString("isItalic(): " + f.isItalic(), 15, 150);
        g.drawString("isPlain(): " + f.isPlain(), 15, 160);
        addWindowListener(new WindowAdapter(){
            public void windowClosing(WindowEvent we)
            {
                System.exit(0);
            }
        });
    }
    public static void main(String args[])
    {
        Frame myFrame = new AF();
        myFrame.setSize(500, 250);
        myFrame.setVisible(true);
    }
}
```

AWT Colors,font Example2:

```
import java.awt.Color;
import java.awt.Frame;
import java.awt.Graphics;

public class UC extends Frame {
    public void paint(Graphics g)
    {
        Color clr1 = new Color(100, 25, 100);
        g.setColor(clr1);
        g.drawString("Color set to graphics: " + g.getColor(), 50, 60);
        g.drawString("Red component: " + clr1.getRed(), 50, 80);
        g.drawString("Green component: " + clr1.getGreen(), 50, 100);
        g.drawString("Blue component: " + clr1.getBlue(), 50, 120);
    }
    public static void main(String args[])
    {
        Frame f1 = new UC();
        f1.setSize(300, 200);
        f1.setVisible(true);
    }
}
```