

**Source Code:**

```
import java.applet.*;
import java.awt.*;
import java.awt.event.*;
/*<applet code="Signals" width=400 height=250></applet>*/
public class Signals extends Applet implements ItemListener
{
    String msg="";
    Checkbox stop,ready,go;
    CheckboxGroup cbg;
    public void init()
    {
        cbg=new CheckboxGroup();
        stop=new Checkbox("Stop",cbg,false);
        ready=new Checkbox("Ready",cbg,false);
        go=new Checkbox("Go",cbg,false);
        add(stop);
        add(ready);
        add(go);
        stop.addItemListener(this);
        ready.addItemListener(this);
        go.addItemListener(this);
    }
    public void itemStateChanged(ItemEvent ie)
    {
        repaint();
    }
    public void paint(Graphics g)
    {
        msg=cbg.getSelectedCheckbox().getLabel();
        g.drawOval(165,40,50,50);
        g.drawOval(165,100,50,50);
        g.drawOval(165,160,50,50);
        if(msg.equals("Stop"))
        {
            g.setColor(Color.red);
            g.fillOval(165,40,50,50);
        }
        else if(msg.equals("Ready"))
        {
            g.setColor(Color.yellow);
            g.fillOval(165,100,50,50);
        }
        else
        {
            g.setColor(Color.green);
            g.fillOval(165,160,50,50);
        }
    }
}
```

```

public class QuickSortOnStrings
{
    String names[];
    int length;
    public static void main(String[]args)
    {
        QuickSortOnStrings obj=new QuickSortOnStrings();
        String stringsList[]={"Raja","Gouthu","Rani","Gouthami","Honey","Heyaansh","Hello"};
        obj.sort(stringsList);
        for(String i:stringsList)
        {
            System.out.println(i);
        }
    }
    void sort(String array[])
    {
        if(array==null||array.length==0)
        {
            return ;
        }
        this.names=array;
        this.length=array.length;
        quickSort(0,length-1);
    }
    void quickSort(int lowerIndex,int higherIndex)
    {
        int i=lowerIndex;
        int j=higherIndex;
        String pivot=this.names[lowerIndex+(higherIndex-lowerIndex)/2];
        while(i<=j)
        {
            while(this.names[i].compareToIgnoreCase(pivot)<0)
            {
                i++;
            }
            while(this.names[j].compareToIgnoreCase(pivot)>0)
            {
                j--;
            }
            if(i<=j)
            {
                exchangeNames(i,j);
                i++;
                j--;
            }
        }
    }
}

```

```

        if (lowerIndex<j)
        {
            quickSort(lowerIndex,j);
        }
        if (i<higherIndex)
        {
            quickSort(i,higherIndex);
        }
    }
}
void exchangeNames(int i,int j)
{
    String temp=this.names[i];
    this.names[i]=this.names[j];
    this.names[j]=temp;
}
}

```

### Output:



