Practical No 01 - Manual Answer

Advance Java Programming (Government Polytechnic, Pune)

ix. Resources used (Additional)

Sr. No.	Name of Resource	Broad Specifications	Quantity	Remarks (if any)
1	Computer System	Lenovo Desktop, Intel Core i3, 2.40 GHz, 4.00 GB RAM	30 (Batch Size)	For all practicals which are Window-based applications
2	Operating System	Windows 8.0, 32-bit OS, x64-based processor		
3	Development Software	JDK 1.8.0_181, Command Prompt, Editors - NetBeans or Eclipse		

x. Program Code

1. Design an applet/application to demonstrate the use of RadioButton and Checkbox.

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

public class My_Window1 extends Frame {
	Label l1, l2;
	Checkbox S1, S2, S3;
	Checkbox C1, C2, C3;  // RadioButtons
	CheckboxGroup Cbg;

	public My_Window1() {
		this.setTitle("My Demo Window 1");
		this.setLayout(new FlowLayout());
		this.setSize(380, 250);

		this.addWindowListener(new WindowAdapter() {
			public void windowClosing(WindowEvent e) {
				dispose(); System.exit(0);
			}
		});

		this.l1 = new Label("Choose Shape/Shapes: ");
		this.add(this.l1);

		this.S1 = new Checkbox("Cube", true);
		this.S2 = new Checkbox("Sphere");
		this.S3 = new Checkbox("Cone");
		this.add(this.S1);
		this.add(this.S2);
		this.add(this.S3);
```

```
            this.l2 = new Label("Choose Colour for Shape/Shapes: ");
            this.add(this.l2);

            this.Cbg = new CheckboxGroup();
            this.C1 = new Checkbox("Red", true, this.Cbg);
            this.C2 = new Checkbox("Yellow", false, this.Cbg);
            this.C3 = new Checkbox("Violet", false, this.Cbg);
            this.add(this.C1);
            this.add(this.C2);
            this.add(this.C3);

            this.setVisible(true);
      }

      public static void main(String[] args) {
            new My_Window1();
      }
}
```

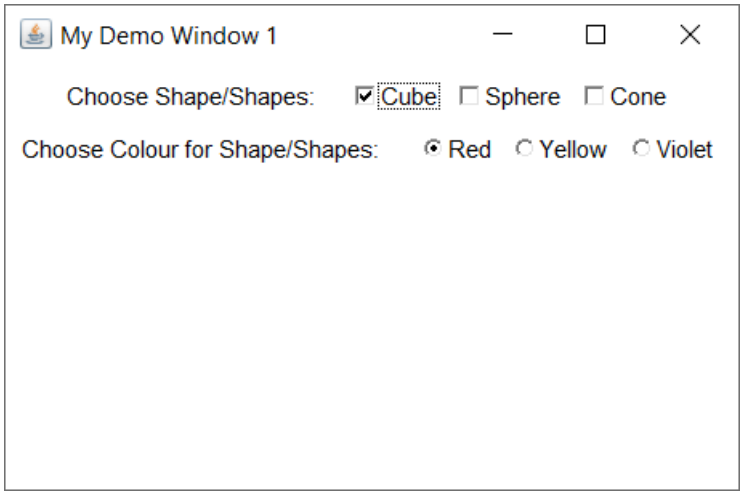
2. Design an applet/application to create form using TextField, TextArea, Button and Label.

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

public class My_Window2 extends Frame {
      Label l1, l2;
      TextField t1;
      TextArea t2;
      Button b1;

      public My_Window2() {
            this.setTitle("My Demo Window 2");
            this.setLayout(new FlowLayout(FlowLayout.LEFT));
            this.setSize(320, 270);

            this.addWindowListener(new WindowAdapter() {
                  public void windowClosing(WindowEvent e) {
                        System.exit(0);
                  }
            });

            this.l1 = new Label("Enter Name: ");
            this.add(this.l1);

            this.t1 = new TextField(20);
            this.add(this.t1);
```

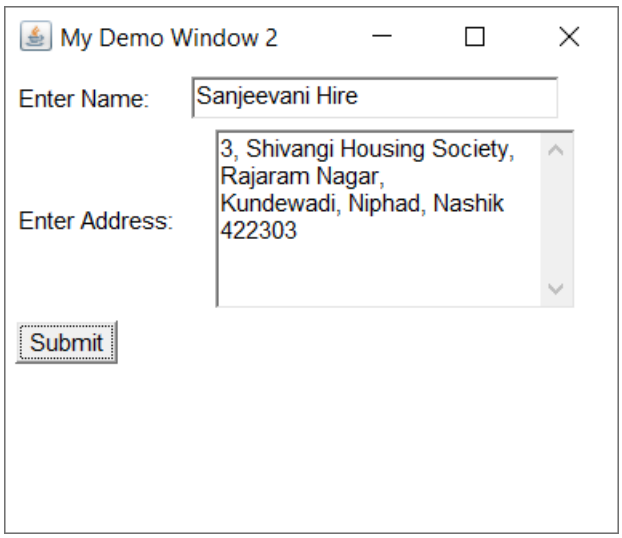
```
            this.l2 = new Label("Enter Address: ");
            this.add(this.l2);

            this.t2 = new TextArea(05, 20);
            this.add(this.t2);

            this.b1 = new Button("Submit");
            this.add(this.b1);

            this.setVisible(true);
      }

      public static void main(String[] args) {
            new My_Window2();
      }
}
```

xi. Result (Output of Code)

Output of Program 1



Output of Program 2



Page No 03 and 04

xii. Practical Related Questions

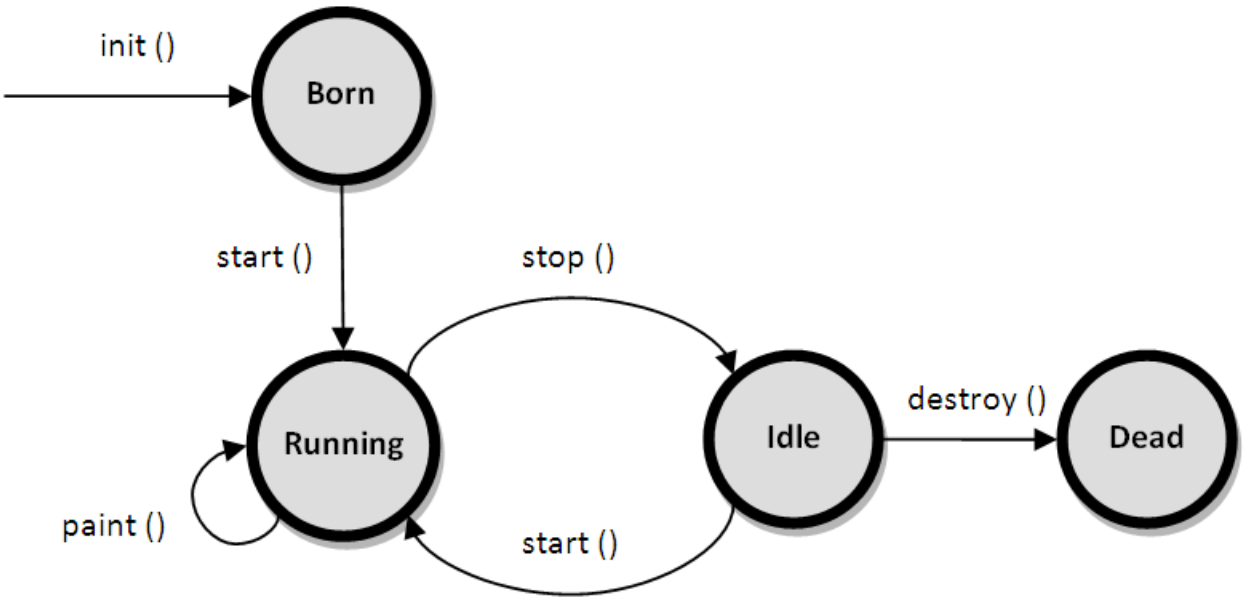
1. State the difference between Checkbox and RadioButton –

The main difference between Checkbox and RadioButton is we can mark or check all the options over the Checkbox but we can mark a single option on RadioButton. RadioButtons are used for a specific answer and the Checkbox are used for getting multiple answers.

2. Write the use of `setEnabled()` method –

This method belongs to Component class. The syntax is **void setEnabled(boolean b)**. This method enables or disables this component, depending on the value (true or false) of the parameter b.

3. Life-cycle of Applet –



As shown in the above diagram, the life cycle of an applet starts with init() method and ends with destroy() method. Other life cycle methods are start(), stop() and paint(). The methods to execute only once in the applet life cycle are init() and destroy(). Other methods execute multiple times.

Page No 04 and 05

xiii. Exercise

1. Develop a program using Label to display message "Welcome to java".

Using Applet

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

/*
<applet code='WelcomeApplet' width=250 height=250>
</applet>
*/
```

```
class WelcomeApplet extends Applet {
      public void init(){
            Label msg = new Label();
            msg.setText("Welcome to Applet.");
            add(msg);
      }
}
```

Using Frame

```
import java.awt.*;

public class WelcomeFrame extends Frame {
      WelcomeFrame1() {
            this.setTitle("Welcome Frame");
            this.setLayout(new FlowLayout());
            this.setSize(250, 250);

            Label msg = new Label("Welcome to Frame.");
            this.add(msg);
            this.setVisible(true);
      }

      public static void main(String args[]) {
            new WelcomeFrame();
      }
}
```

2. Develop a program to select multiple languages known to user (e.g. Marathi, Hindi, English and Sanskrut).

```
import java.awt.*;

public class My_Window3 extends Frame {
      Label lb1;
      Checkbox l1, l2, l3, l4;

      public My_Window3() {
            this.setTitle("My Demo Window 3");
            this.setLayout(new FlowLayout());
            this.setSize(300, 250);

            this.lb1 = new Label("Choose the language/languages: ");
            this.add(this.lb1);

            this.l1 = new Checkbox("Marathi", true);
            this.add(this.l1);
```

```
            this.l2 = new Checkbox("Hindi");
            this.add(this.l2);

            this.l3 = new Checkbox("English");
            this.add(this.l3);

            this.l4 = new Checkbox("Sanskrut");
            this.add(this.l4);

            this.setVisible(true);
      }

      public static void main(String[] args) {
            new My_Window3();
      }
}
```

3. Write a program to create three Button with caption OK, RESET and CANCEL.

```
import java.awt.*;

public class My_Window4 extends Frame {
      Button btnOk, btnReset, btnCancel;

      public My_Window4() {
            this.setTitle("My Demo Window 4");
            this.setLayout(new FlowLayout());
            this.setSize(300, 250);

            this.btnOk = new Button("Ok");
            this.add(this.btnOk);

            this.btnReset = new Button("Reset");
            this.add(this.btnReset);

            this.btnCancel = new Button("Cancel");
            this.add(this.btnCancel);

            this.setVisible(true);
      }

      public static void main(String[] args) {
            new My_Window4();
      }
}
```