Practical No 02 - Manual Answer

Advance Java Programming (Government Polytechnic, Pune)

Assignment No 02

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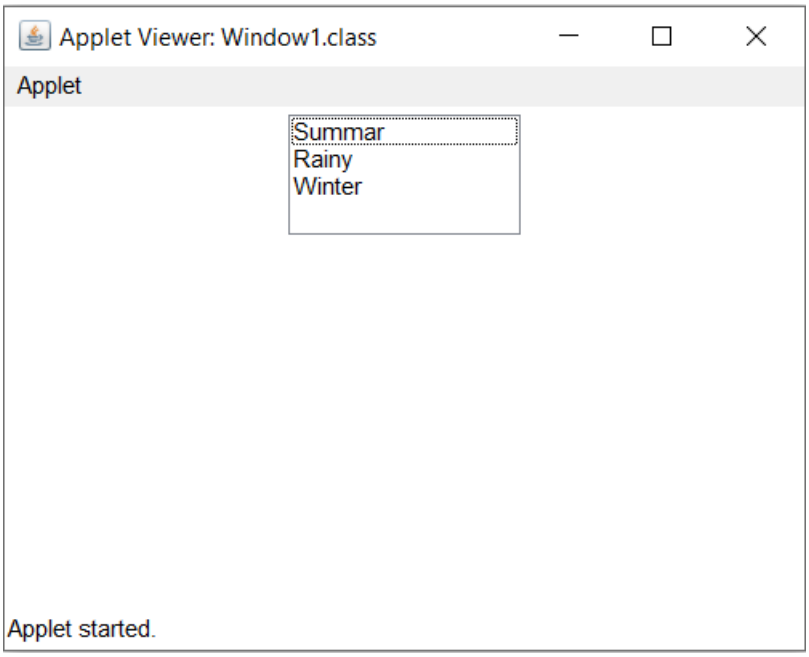
ix. Resources used (Additional)

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. Write Java Program to Show Following Output.



Program:

```
import java.applet.Applet;
import java.awt.FlowLayout;
import java.awt.List;

public class Window1 extends Applet {
	List seasons;

	public void init() {
		this.setLayout(new FlowLayout());
		this.setSize(400, 250);
```

```
            this.seasons = new List(4, true);
            this.seasons.add("Summar");
            this.seasons.add("Rainy");
            this.seasons.add("Winter");

            this.add(this.seasons);
      }
}
```

xi. Result (Output of Code)

Window shown in Question No 01

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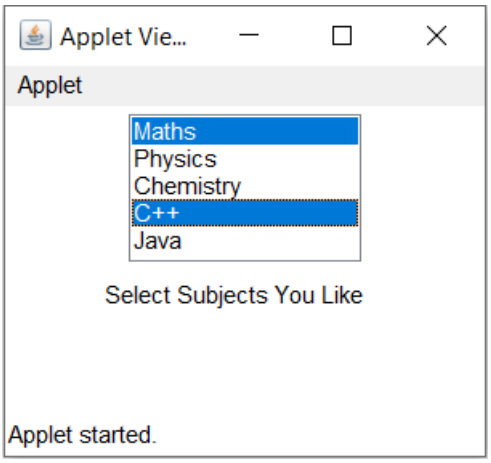
xii. Practical Related Questions

1. Write the name of components used in following output.



Answer: Components – Applet, List and Label

Program:

```
import java.applet.Applet;
import java.awt.FlowLayout;
import java.awt.Label;
import java.awt.List;

public class Window5 extends Applet {
      List lstSubjects;
      Label msg;

      public void init() {
            this.setSize(200, 150);
```

```
            this.setLayout(new FlowLayout());

            this.lstSubjects = new List(5, true);
            this.lstSubjects.add("Maths");
            this.lstSubjects.add("Physics");
            this.lstSubjects.add("Chemistry");
            this.lstSubjects.add("C++");
            this.lstSubjects.add("Java");
            this.add(this.lstSubjects);

            this.msg = new Label("Select Subjects You Like");
            this.add(this.msg);
      }
}
```

2. State the difference between List and Choice control.

A Choice is displayed in a compact form that requires you to pull it down to see the list of available choices. Only one item may be selected from a Choice. A List may be displayed in such a way that several List items are visible. A List supports the selection of one or more List items.

3. Write the use of getSelectedItem() and getSelectedIndex() for List.

Syntax: **`String getSelectedItem()`** and **`int getSelectedIndex()`**

- The getSelectedIndex() method gets the index of the selected item on the list.
- The getSelectedItem() method gets the selected item on this scrolling list.

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xiii. Exercise

1. Develop an applet/application using List components to add names of 10 different cities.

```
import java.applet.Applet;
import java.awt.FlowLayout;
import java.awt.Label;
import java.awt.List;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class Window3 extends Applet implements ActionListener {
      String [] cities = {"Pune", "Nashik", "Delhi",
                  "Mumbai", "Banglore", "Chennai", "Dhule",
                  "Kolkata", "Jaipur", "Surat"};
```

```
	List lstCities;
	Label msg;

	public void init() {
		this.setSize(400, 250);
		this.setLayout(new FlowLayout());

		this.lstCities = new List(4);

		for(int i=0; i<10; i++) {
			this.lstCities.add(cities[i]);
		}

		this.lstCities.addActionListener(this);
		this.add(this.lstCities);

		msg = new Label("......................." +
				"......................");
		this.add(this.msg);
	}

	public void actionPerformed(ActionEvent e) {
		this.msg.setText(this.lstCities.getSelectedItem());
	}
}
```

2. Develop applet/application to select multiple names of newspapers.

```
import java.awt.FlowLayout;
import java.awt.Frame;
import java.awt.Label;
import java.awt.List;
import java.awt.event.ItemEvent;
import java.awt.event.ItemListener;

public class Window4 extends Frame implements ItemListener {
	List lstNewspapers;
	Label msg;
	String newspapers[] = {"Lokmat", "The Times of India",
			"Maharastra Times", "Gavkari", "Loksatta",
			"The Hindu", "Economic Times", "Sakal",
			"Navakal", "Divya Marathi"};
```

```
	public Window4() {
		this.setTitle("Lists - Newspapers Demo");
		this.setSize(400, 250);
		this.setLayout(new FlowLayout());

		this.lstNewspapers = new List(5, true);

		for(int i=0; i<10; i++) {
			this.lstNewspapers.add(this.newspapers[i]);
		}

		this.lstNewspapers.addItemListener(this);
		this.add(this.lstNewspapers);

		this.msg = new Label("..................." +
				"......................................." +
				"......................................");

		this.add(this.msg);

		this.setVisible(true);
	}

	public static void main(String[] args) {
		new Window4();
	}

	@Override
	public void itemStateChanged(ItemEvent e) {
		String newspapers[] =
					this.lstNewspapers.getSelectedItems();
		String message = "";

		for(int i = 0; i<newspapers.length; i++) {
			message = message + newspapers[i] + " ";
		}

		this.msg.setText(message);
	}
}
```

3. Develop applet/application to select one day from seven days of week.

```
import java.awt.Choice;
import java.awt.FlowLayout;
import java.awt.Frame;
import java.awt.Label;
import java.awt.event.ItemEvent;
import java.awt.event.ItemListener;

public class Window2 extends Frame implements ItemListener {
	Choice days;
	Label msg, lbcount;

	public Window2() {
		this.setTitle("Choice Demo");
		this.setSize(400, 250);
		this.setLayout(new FlowLayout());

		days = new Choice();
		days.addItem("Sunday");
		days.addItem("Monday");
		days.addItem("Tuesday");
		days.addItem("Wednesday");
		days.addItem("Thursday");
		days.addItem("Friday");
		days.addItem("Saturday");

		days.select("Monday");

		this.add(days);

		msg = new Label("....................." +
				"...................");
		this.add(msg);

		lbcount = new Label("....................." +
				"...................");
		this.add(lbcount);

		this.days.addItemListener(this);
		this.setVisible(true);
	}
```

```
	public static void main(String[] args) {
		new Window2();
	}

	@Override
	public void itemStateChanged(ItemEvent e) {
		msg.setText(this.days.getSelectedItem());
		lbcount.setText(
			Integer.toString(this.days.countItems()));;
	}
}
```