TRINITY INTERNATIONAL COLLEGE

(Tribhuvan University Affiliated)

Lab Report:6   Java Beans

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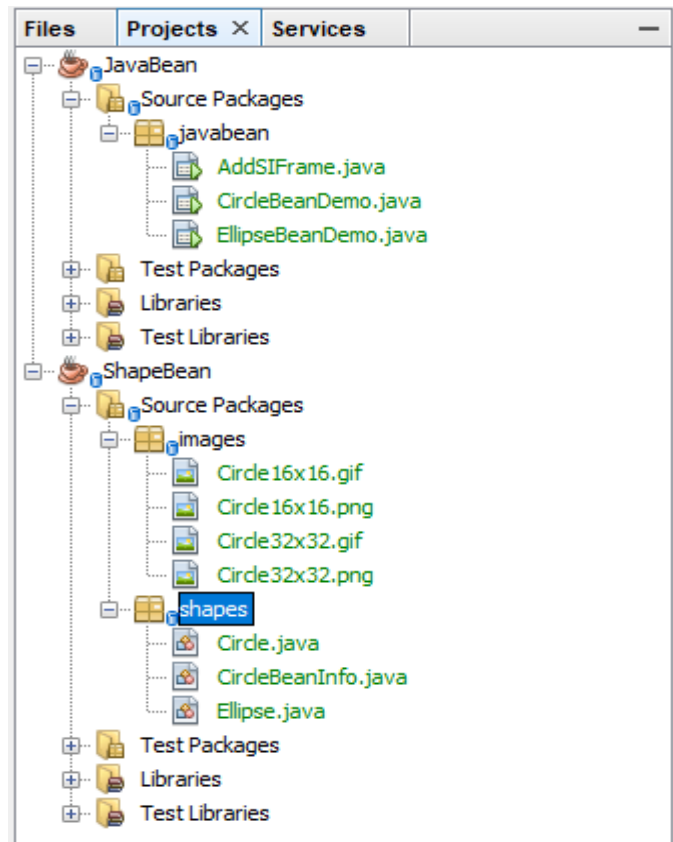Roll No :10
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Unit 6: Java Beans

Project Folder:

1. Write a suitable program illustrating the use of Java Beans. [2069]

Circle.java

```java
package shapes;

import java.awt.Graphics;
import javax.swing.JPanel;

public class Circle extends JPanel {

    public Circle() { }

    private int r = 0;

    public int getRadius() {
        return r;
    }

    public void setRadius(int radius) {
        r = radius;
        repaint();
```

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```
        }

        @Override
        public void paintComponent(Graphics g) {
            super.paintComponent(g);
            if (r <= 0) return;

            int cx = getWidth() / 2, cy = getHeight() / 2;
            int x = cx - r, y = cy - r;
            int w = 2 * r, h = w;
            g.drawOval(x, y, w, h);
        }
}
```

CircleBeanInfo.java

```java
package shapes;

import java.awt.Image;
import java.beans.BeanInfo;
import java.beans.SimpleBeanInfo;

public class CircleBeanInfo extends SimpleBeanInfo {
    private final Image iconColor16;
    private final Image iconColor32;
    private final Image iconMono16;
    private final Image iconMono32;

    public CircleBeanInfo() {
        iconColor16 = loadImage("/images/Circle16x16.png");
        iconColor32 = loadImage("/images/Circle32x32.png");
        iconMono16 = loadImage("/images/Circle16x16.png");
        iconMono32 = loadImage("/images/Circle32x32.png");
    }

    @Override
    public Image getIcon(int iconType) {
        switch (iconType) {
            case BeanInfo.ICON_COLOR_16x16:
                return iconColor16;
            case BeanInfo.ICON_COLOR_32x32:
                return iconColor32;
            case BeanInfo.ICON_MONO_16x16:
                return iconMono16;
            case BeanInfo.ICON_MONO_32x32:
                return iconMono32;
            default:
                return null;
        }
    }
```
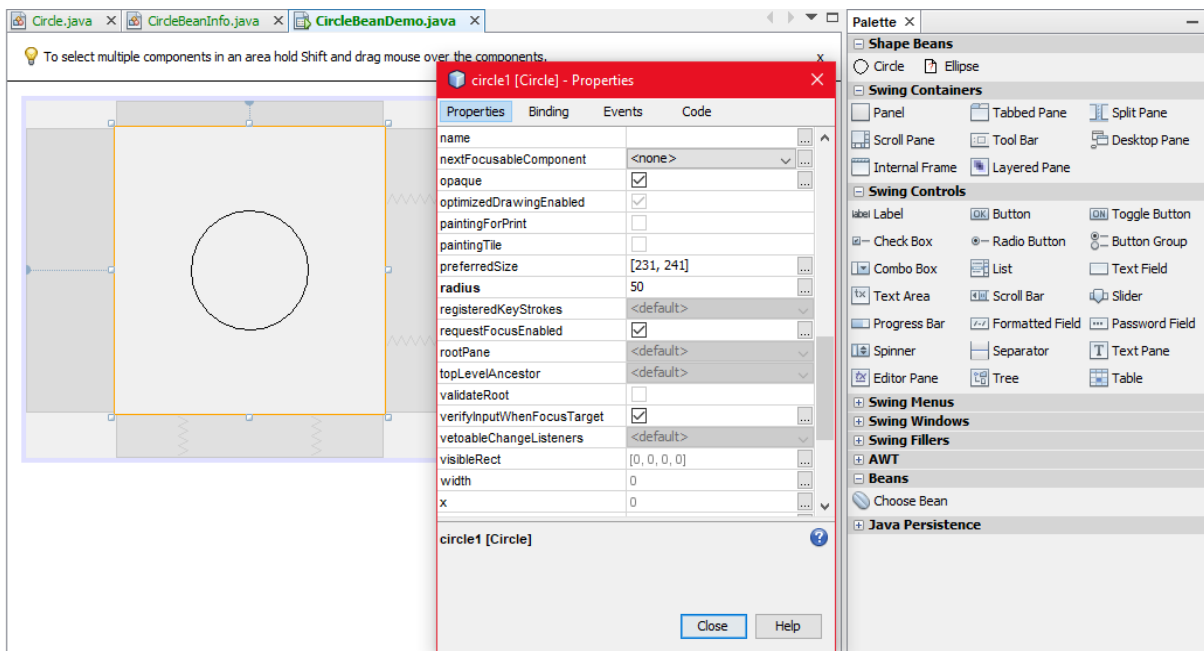
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```
        }
```

CircleBeanDemo.java

2.   Create a custom Java Bean named Ellipse which can be used to draw an ellipse.

Ellipse.java

```java
package shapes;

import java.awt.Graphics;
import javax.swing.JPanel;

public class Ellipse extends JPanel {

    public Ellipse() { }

    private int x_radius = 0;
    private int y_radius = 0;

    public int get_xRadius() {
        return x_radius;
    }

    public void set_xRadius(int xradius) {
        x_radius = xradius;
        repaint();
    }
```

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```java
public int get_yRadius() {
    return y_radius;
}

public void set_yRadius(int yradius) {
    y_radius = yradius;
    repaint();
}

@Override
public void paintComponent(Graphics g) {
    super.paintComponent(g);
    if (x_radius <= 0 || y_radius <= 0)
        return;


    int cx = getWidth() / 2, cy = getHeight() / 2;
    int x = cx - x_radius, y = cy - y_radius;
    int w = 2 * x_radius, h = 2*y_radius;
    g.drawOval(x, y, w, h);
}
}
```

EllipseBeanDemo.java

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