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**ROLL-20, Dept. - CSE, YEAR – 4th , 7TH SEM**

**IT LAB ASSIGNEMNT 13**

**04-02-2021**

## 1. Banner:

```
import java.awt.*;
import java.applet.*;
public class Banner extends Applet implements Runnable
{  String msg = " It is a moving Banner. ";
 char cha;
 boolean stopFlag = true;
 Thread t = null;
 public void start() {
 t = new Thread(this);
 stopFlag = false;
 t.start();
 }
 public void run() {
 for(;;) {
 try {
 repaint();
 Thread.sleep(250);
 cha = msg.charAt(0);
 msg = msg.substring(1,msg.length());
 msg = msg + cha;
 if(stopFlag) break;
 }
 catch(InterruptedException e) {}
 }
 }
 public void stop(){
 stopFlag = true;
 t = null;
 }
 public void paint(Graphics g) {
 g.drawString(msg,60,30);
 }
}
/*
<applet code="Banner.class" width="300" height="300">
</applet>
*/
```

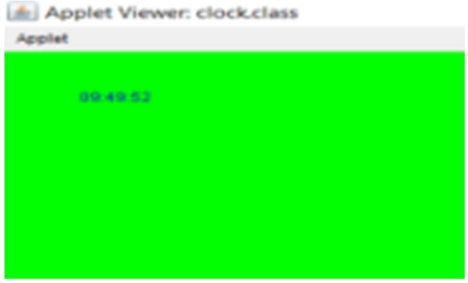
**OUTPUT –**

## 2. Clock:

```
import java.applet.*;
import java.awt.*;
import java.util.*;
import java.text.*;
public class clock extends Applet implements Runnable {
Thread t = null;
 int hours=0, minutes=0, seconds=0;
 String timeString = "";
 public void init() {
 setBackground( Color.green);
 }
 public void start() {
 t = new Thread( this );
 t.start();
 }
 public void run() {
 try {
 while (true) {
 Calendar cal = Calendar.getInstance();
 hours = cal.get( Calendar.HOUR_OF_DAY );
 if ( hours > 12 ) hours -= 12;
 minutes = cal.get( Calendar.MINUTE );
 seconds = cal.get( Calendar.SECOND );
 SimpleDateFormat formatter = new SimpleDateFormat("hh:mm:ss");   Date
date = cal.getTime();
 timeString = formatter.format( date );

 repaint();
 t.sleep( 1000 ); // interval given in milliseconds
 }
 }
 catch (Exception e) { }
 }
 public void paint( Graphics g ) {
 g.setColor( Color.blue );
 g.drawString( timeString, 50, 50 );
 }
}
/*
<applet code="clock.class" width="300" height="300">
</applet>
*/
```

**OUTPUT:**



## 3. Colorshapes:

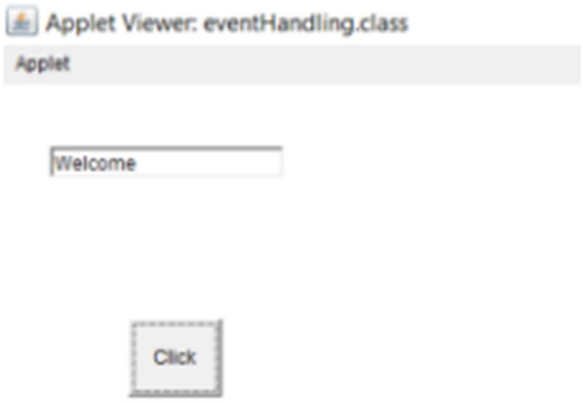
```
import java.applet.*;
import java.awt.*;
public class colorshapes extends Applet {
 public void paint(Graphics g) {
 g.drawRect(300,150,200,100);
 g.setColor(Color.yellow);
 g.fillRect( 300,150, 200, 100 );
 g.setColor(Color.magenta);
 g.drawString("Rectangle",500,150);
 }
}
/*
<applet code="colorshapes.class" width="300" height="300">
</applet>
*/
```

**OUTPUT-**

**4. Event Listner:**

```
import java.applet.*;
import java.awt.*;
import java.awt.event.*;
public class eventHandling extends Applet implements ActionListener{
Button b;
TextField tf;
public void init(){
tf=new TextField();
tf.setBounds(30,40,150,20);
b=new Button("Click");
b.setBounds(80,150,60,50);
add(b);add(tf);
b.addActionListener(this);
setLayout(null);
}
 public void actionPerformed(ActionEvent e){
 tf.setText("Welcome");
 }
}
 /*
<applet code="eventHandling.class" width="300" height="300">
</applet>
*/
```

**OUTPUT-**



## 5. GoTo Link:

```
import java.applet.*;
import java.awt.*;
import java.net.*;
import java.awt.event.*;
public class goToLink extends Applet implements ActionListener {
 public void init() {
 String link = "school";
 Button b = new Button(link);
 b.addActionListener(this);
 add(b);
 }
 public void actionPerformed(ActionEvent ae) {
 Button src = (Button)ae.getSource();
 String link = "http://www.stcet"+src.getLabel()+".org";
 try {
 AppletContext a = getAppletContext();
 URL u = new URL(link);
 a.showDocument(u,"_self");
 } catch (MalformedURLException e){
 System.out.println(e.getMessage());
 }
 /*
<applet code="goToLink.class" width="300" height="300">
</applet>
*/
 }
}
```

**OUTPUT-**

## 6. Shapes:

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

public class shapes extends Applet {
 int x = 300, y = 100, r = 50;
 public void paint(Graphics g) {
 g.drawLine(30,300,200,10);
 g.drawOval(x-r,y-r,100,100);
 g.drawRect(400,50,200,100);
 }
}
/*
<applet code="shapes.class" width="300" height="300">
</applet>
*/
```

**OUTPUT**

## 7. Link:

```
import java.applet.*;
import java.awt.*;
import java.net.*;
import java.awt.event.*;
public class openLink extends Applet implements ActionListener {
 public void init() {
 String link_Text = "google";
 Button b = new Button(link_Text);
 b.addActionListener(this);
 add(b);
 }
 public void actionPerformed(ActionEvent ae) {
 Button source = (Button)ae.getSource();
 String link = "http://www."+source.getLabel()+".com";
 try {
 AppletContext a = getAppletContext();
 URL url = new URL(link);
 a.showDocument(url,"_blank");
 } catch (MalformedURLException e) {
 System.out.println(e.getMessage());
 }
 }
}
 /*
<applet code="openLink.class" width="300" height="300">
</applet>
*/
```

**OUTPUT**

## 8. ReadFile:

```
import java.applet.*;
import java.awt.*;
import java.io.*;
import java.net.*;
public class readFile extends Applet {
 String fileToRead = "test1.txt";
 StringBuffer strBuff;
 TextArea txtArea;
 Graphics g;
 public void init() {
 txtArea = new TextArea(100, 100);
 txtArea.setEditable(false);
 add(txtArea, "center");
 String prHtml = this.getParameter("fileToRead");
 if (prHtml != null) fileToRead = new String(prHtml);
 readFile();
 }
 public void readFile(){
 String line;
 URL url = null;
 try {
 url = new URL(getCodeBase(), fileToRead);
 }
 catch(MalformedURLException e){}
 try {
 InputStream in = url.openStream();
 BufferedReader bf = new BufferedReader(new InputStreamReader(in));
 strBuff = new StringBuffer();
 while((line = bf.readLine()) != null) {
 strBuff.append(line + "\n");
 }
 txtArea.append("File Name : " + fileToRead + "\n");
 txtArea.append(strBuff.toString());
 } catch(IOException e) {
 e.printStackTrace();
 }
 }
}
 /*
<applet code="readFile.class" width="300" height="300">
</applet> */
```

**OUTPUT**

## 9. Sound:

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

public class sound extends Applet implements ActionListener {
 Button play,stop;
 AudioClip audioClip;

 public void init() {
 play = new Button(" Play in Loop ");
 add(play);
 play.addActionListener(this);
 stop = new Button(" Stop ");
 add(stop);
 stop.addActionListener(this);
 audioClip = getAudioClip(getCodeBase(), "abc.mp3");
 }
 public void actionPerformed(ActionEvent ae) {
 Button source = (Button)ae.getSource();
 if (source.getLabel() == " Play in Loop ") {
 audioClip.play();
 } else if(source.getLabel() == " Stop "){
 audioClip.stop();
 }
 }
}
 /*
<applet code="sound.class" width="300" height="300">
</applet>
*/
```

**OUTPUT-**

## 10. WriteFile:

```
import java.io.*;
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import java.applet.Applet;
import java.net.*;
public class writeFile extends Applet {
 Button write = new Button("WriteToFile");
 Label label1 = new Label("Enter the file name:");
 TextField text = new TextField(20);
 Label label2 = new Label("Write your text:");
 TextArea area = new TextArea(10,20);
 public void init() {
 add(label1);
 label1.setBackground(Color.lightGray);
 add(text);
 add(label2);
 label2.setBackground(Color.lightGray);
 add(area);
 add(write,BorderLayout.CENTER);

 write.addActionListener(new ActionListener () {
 public void actionPerformed(ActionEvent e) {
 new WriteText();
 }
 });
 }
 public class WriteText {
 WriteText() {
 try {
 String str = text.getText();

 if(str.equals("")) {
 JOptionPane.showMessageDialog(null, "Please enter the file name!");
text.requestFocus();
 } else {
 File f = new File(str);
 if(f.exists()) {
 BufferedWriter out = new BufferedWriter(new FileWriter(f,true));
if(area.getText().equals("")) {
 JOptionPane.showMessageDialog (null,"Please enter your text!");
area.requestFocus();
 } else {
 out.write(area.getText());
 if(f.canWrite()) {
 JOptionPane.showMessageDialog(null, "Text is written in "+str);
text.setText("");
 area.setText("");
 text.requestFocus();
 } else {
 JOptionPane.showMessageDialog(null, "Text isn't written in "+str);  }
 out.close();
 }
 } else {
 JOptionPane.showMessageDialog (null,"File not found!");
text.setText("");
 text.requestFocus();
 }
```

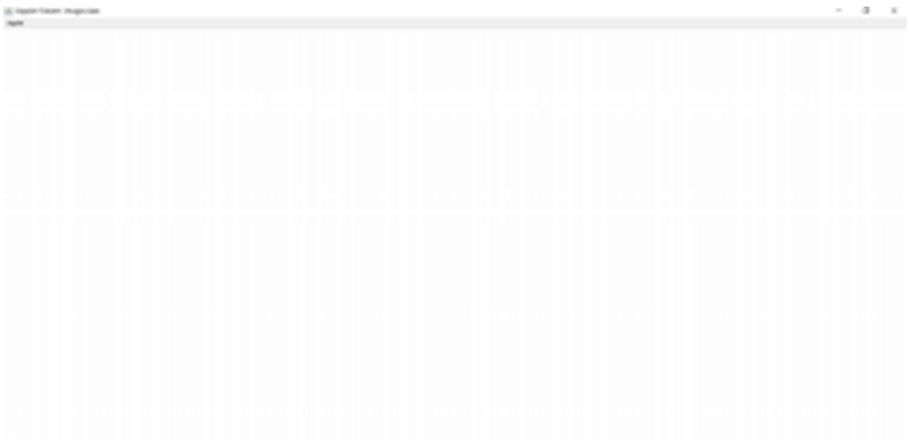
```
}
} catch(Exception x) {
 x.printStackTrace();
} } } }
/*
<applet code="writeFile.class" width="300" height="300">
</applet>
*/
```

**OUTPUT**

**11. Image:**

```
import java.awt.*;
import java.applet.*;
public class image extends Applet {
 Image picture;
 public void init() {
 picture = getImage(getDocumentBase(),"abc.jpg");
 }
 public void paint(Graphics g) {
 g.drawImage(picture, 30,30, this);
 }
 }
 /*
<applet code="image.class" width="300" height="300">
</applet>
*/
```

**OUTPUT-**



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