Contents

Page

1 Assignment-1

1.1 HTML form

```
1  <html>
2   <head>
3     <link rel="stylesheet" href="style.css">
4     <script type="text/javascript" src="form.js"></script>
5   </head>
6   <body>
7    <div class="form">
8      <form id="myForm" >
9       <h2> Sign Up</h2>
10      FirstName:
11      <input type="text"name="firstName"id="firstName">
12      <br> <span id="firstValidation" class="validation">
13      </span>
14      <br><br> LastName:
15      <input type="text" name="lastName" id="lastName">
16      <br><span id="secondValidation" class="validation">
17      </span>
18      <label for="gender"> Gender: </label> <br>
19      <input type="radio" name="gender" id="male" checked>male
20      <input type="radio" name="gender" id="female"> female
21      <div style="display:block;">Tshirt size-
22        <select name="tshirtColor" id="dropDown">
23         <option value="small"> Small </option>
24         <option value="medium" selected>  Medium </option>
25         <option value="large"> Large </option>
26        </select><br><br>Tshirt color-
27        <select name="tshirtColor" id="dropDown">
28         <option value="small"> red </option>
29         <option value="medium" selected>  blue </option>
30         <option value="large"> yellow </option>
31        </select>
32      </div><br>email :<input type="email" name="Email" id="Email">
33      <span id="emailValidation" class="validation"></span>password:
34      <input type="password" name="password" id="password">
35      <br><br> <br>
36      phone number: <input type="tel" id = "phno">
37      <br><span id="phoneValidation" class="validation"></span>
38      Address: <br>
39      <textarea name="Address" id="address" cols="30" rows="10">
40      </textarea>
41      <br><span id="addressValidation"></span> <br>
42      <div class="buttonholder">
43       <input type="submit"value="Submit"id="submit" onclick="validate();">
44       <input type="reset"value="Reset"id="reset" onclick="resetFields();">
45      </div>
46     </form>
47    </div>
48   </body>
49  </html>
```

1.2 JavaScript

```
 1  function validate(){
 2   var firstName = document.getElementById("firstName").value;
 3   var lastName = document.getElementById("lastName").value;
 4   var ph = document.getElementById("phno").value;
 5   var email = document.getElementById("Email").value;
 6   var password = document.getElementById("password").value;
 7   var regex=/^[a-zA-z]+$/;
 8   var phn=/^[0-9]{10}$/;
 9   var e=/^([a-zA-Z0-9_\-\.])$/;
10   var flag=true;
11   if(firstName=="")
12   {
13    document.getElementById("firstValidation").innerHTML = "";
14   }
15   if(lastName=="")
16   {
17    document.getElementById("secondValidation").innerHTML = "";
18   }
19   console.log("inside validate");
20   if(firstName!="" || lastName!="")
21   {
22    if(regex.test(firstName)== false)
23    {
24     document.getElementById("firstValidation").innerHTML="xyz";
25     document.getElementById("firstName").value="";
26     flag=false;
27    }
28    if(regex.test(lastName)== false)
29    {
30     document.getElementById("secondValidation").innerHTML ="xyz";
31     document.getElementById("lastName").value="";
32     flag=false;
33    }
34    if(firstName.length>40)
35    {
36     document.getElementById("firstValidation").innerHTML = "xyz"
37     document.getElementById("firstName").value="";
38     flag=false;
39    }
40    if(lastName.length>40)
41    {
42     document.getElementById("secondValidation").innerHTML="xyz";
43     document.getElementById("lastName").value="";
44     flag=false;
45    }
46   }
47   if(ph!="")
48   {
49    if(phn.test(ph)==false)
50    {
51     document.getElementById("phoneValidation").innerHTML="10digit";
52     document.getElementById("phno").value="";
53     flag=false;
```

```
54     }
55   }
56   else
57   {
58    document.getElementById("phoneValidation").innerHTML = "";
59   }
60   if(email!="")
61   {
62    if(e.test(email)==false)
63    {
64     document.getElementById("emailValidation").innerHTML ="email␣id";
65     document.getElementById("Email").value="";
66     flag=false;
67    }
68   }
69   else
70   {
71     document.getElementById("emailValidation").innerHTML = "";
72   }
73   if(flag&&firstName!=""&&lastName!=""&& ph!="")
74   {
75     document.write("Form␣successfully␣submitted");
76     setTimeout(function() {
77     window.location.reload(true);
78     }, 3000);
79   }
80  }
81  function resetFields(){
82   window.location.reload(true);
83  }
```

1.3 CSS

```
1   body{
2       background: #5b5f63;
3       font-size: 20px;
4       width: 95%;
5       height: 95%;
6   }
7   body *{
8       box-sizing: border-box;
9   }
10  div.form
11  {
12      display: block;
13      text-align: center;
14      background: rgba(248, 248, 248, 0.815);
15      margin-left: 500px;
16      margin-right: 500px;
17      margin-top: 50px;
18      margin-bottom: 50px;
19      width: 45%;
20      -webkit-border-radius: 5px;
21      -moz-border-radius: 5px;
```

```
22 }
23 h2
24 {
25     text-align: center;
26     width: 100%;
27 }
28 input{
29     padding: 10px;
30     border: 2px solid #e7e7e7;
31     -webkit-border-radius: 5px;
32     -moz-border-radius: 5px;
33     border-radius: 5px;
34 }
35 form
36 {
37     display: inline-block;
38     margin-left: auto;
39     margin-right: auto;
40     text-align: left;
41     width: 60%;
42
43 }
44 input[type=radio]:not(old){
45     display: inline-block;
46     line-height: 24px;
47     border: 0.0625em solid rgb(209, 19, 19);
48 }
49 #email{
50     width: 90%;
51 }
52 #password{
53     width: 90%;
54 }
55 #firstName{
56     margin-top: 40px;
57     width: 90%;
58 }
59 #phno{
60     width: 90%;
61 }
62 #lastName{
63     width: 90%;
64 }
65 #address{
66     width: 100%;
67 }
68 .buttonholder{
69     text-align: center;
70 }
71 .buttons{
72     height: auto;
73     font-size: 22px;
74     font-weight: 500;
75     padding: 30px;
76     width: 50%;
```

```
 77        text-align: center;
 78        color: white;
 79        background: #15CD72;
 80        border: 1;
 81        cursor: pointer;
 82        margin-bottom: 0;
 83 }
 84 .validation{
 85        margin-left: 110px;
 86        color: rgba(250, 3, 3, 0.45);
 87        font-size: x-small;
 88 }
 89 .buttons:hover{
 90        background-color: #9696E2;
 91 }
 92 .buttons:active {
 93        background-color:#9595E7;
 94        box-shadow: 0 5px #666;
 95        transform: translateY(4px);
 96   }
 97   #phonevalidation{
 98        margin-left: 136px;
 99   }
100 #submit{
101        float: left;
102 }
103 #reset{
104        float:right;
105 }
```
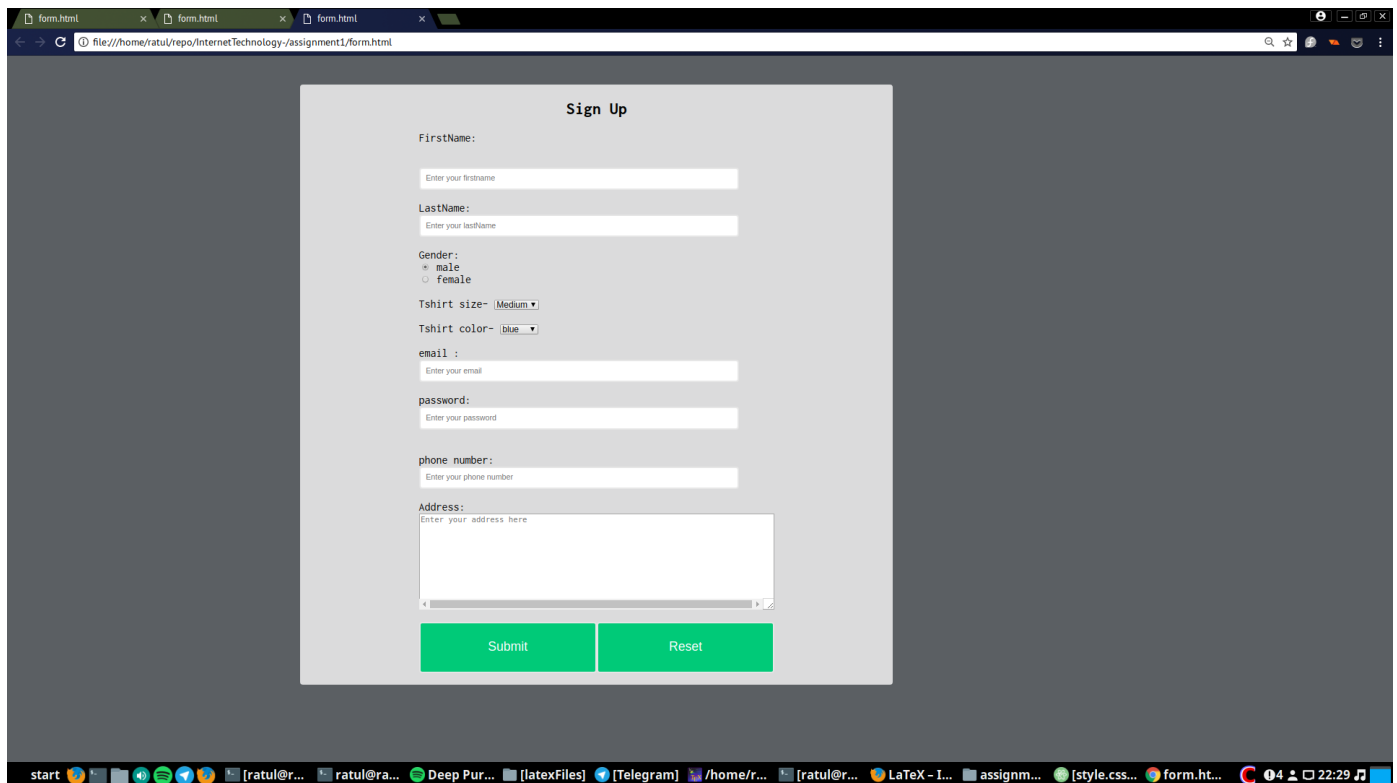

Figure 1: form.html

2 Assignment-2

2.1 Banner using applet

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

public class Banner extends Applet
{
    String msg;
    char ch;
    boolean stop;
    Thread t;

    public void init () {
        msg = "Maulana Abul Kalam Azad University of Technology. ";
        setFont(new Font("TimesRoman",Font.BOLD + Font.ITALIC, 20));
        setBackground(Color.cyan);
        setForeground(Color.red);
    }
    public void paint (Graphics g) {
        g.drawString(msg, 150, 150);
    }
}
```
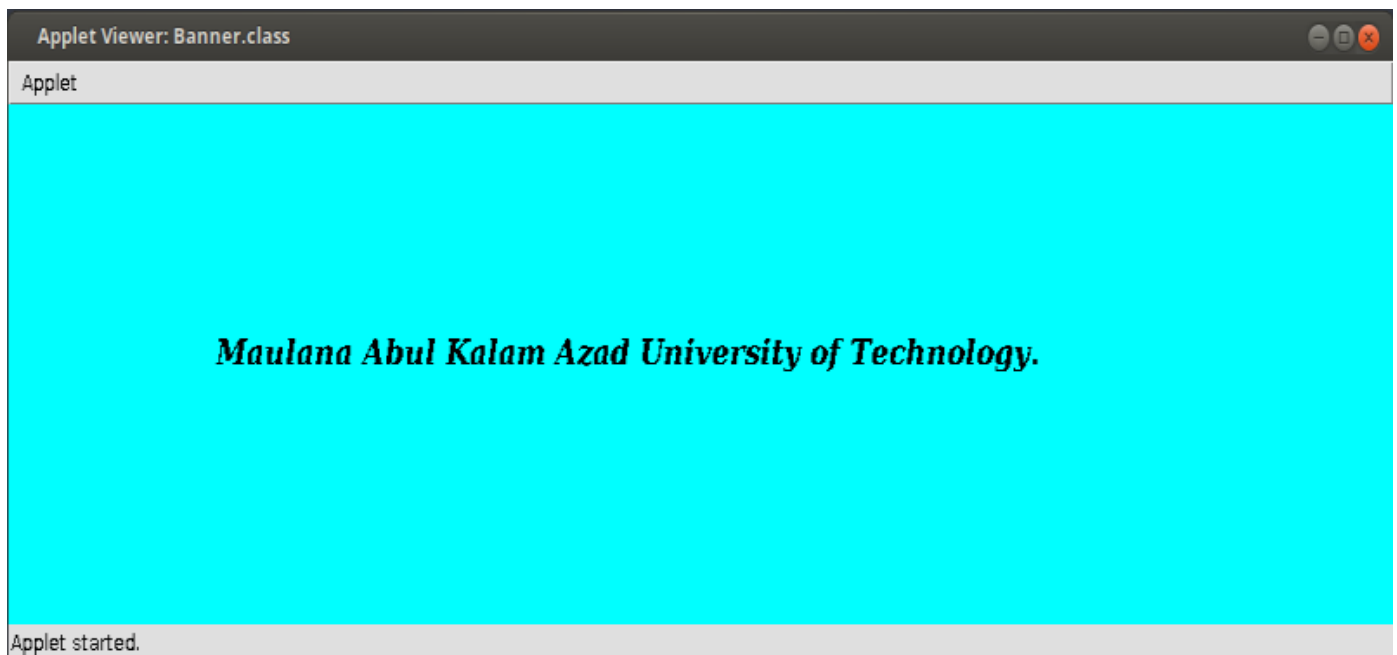

Figure 2: Banner

2.2   Generating shapes using applet

```java
import java.applet.Applet;
import java.awt.*;
/* <applet code="GraphicsDemo" width=500 height=500></applet> */
public class GraphicsDemo extends Applet{
  public void paint(Graphics g)
  {
        g.setColor(Color.red);
        g.drawString("Welcome",50, 50);
        g.drawLine(20,30,20,300);
        g.drawRect(70,100,30,30);
        g.fillRect(170,100,30,30);
        g.drawOval(70,200,30,30);

        g.setColor(Color.pink);
        g.fillOval(170,200,30,30);
        g.drawArc(90,150,30,30,30,270);
        g.fillArc(270,150,30,30,0,180);

  }
}
```
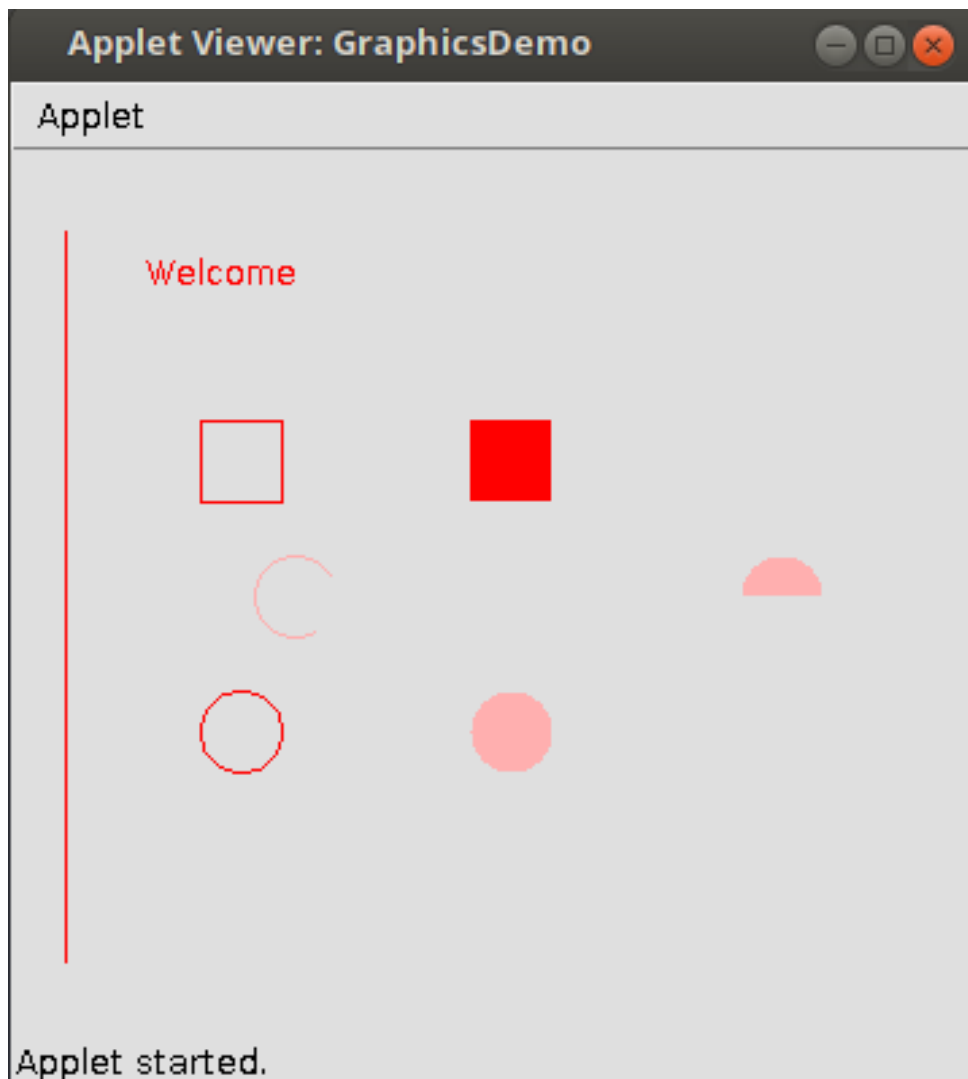

Figure 3: Different shapes

2.3   Clock using applet

```java
import java.awt.*;
import java.applet.*;
import java.util.*;
import java.text.*;
public class DigiClock extends Applet implements Runnable
{
  Thread t = null;
  String time = "";
  public void init () {
    setFont(new Font("Helvetica",Font.BOLD, 50));
    setBackground(Color.darkGray);
  }
  public void start () {
    t = new Thread(this);
    t.start();
  }
  public void run () {
    try {
      while (true) {
        Calendar cal = Calendar.getInstance();
        SimpleDateFormat formatting = new SimpleDateFormat("hh:mm:ss");
        Date date = cal.getTime();
        time = formatting.format(date);

        repaint();

        t.sleep(1000);//time in milliseconds
      }
    }
    catch (Exception e) { }
  }
  public void paint (Graphics g){
    g.setColor(Color.GRAY);
    g.drawString(time, 125, 250);
  }
}
```
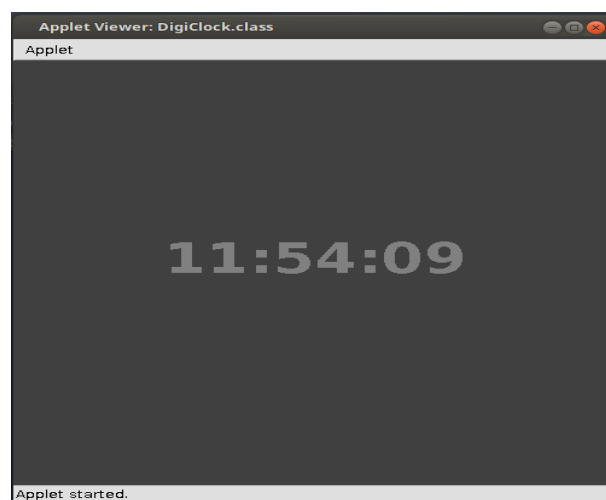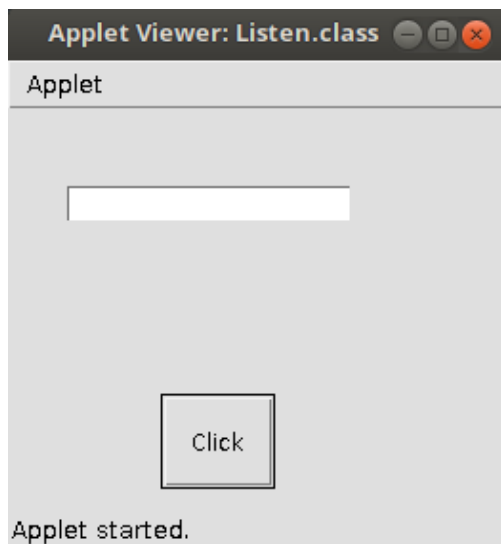

Figure 4: Clock applet

2.4   Event listener using Applet
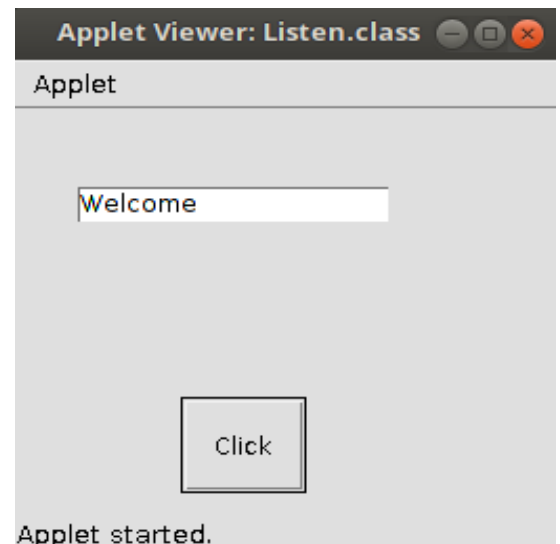
```java
import java.awt.*;
import java.applet.*;
import java.awt.event.*;

public class Listen 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");
  }
}
```


(a) Before click

(b) After click

Figure 5: A click event listener

2.5   Playing sound using applet

```
1  import java.applet.*;
2  import java.awt.*;
3  import java.awt.event.*;
4
5  public class Sound extends Applet implements ActionListener
6  {
7      Button play;
8      AudioClip audioClip;
9
10     public void init() {
11         play = new Button("␣Play␣");
12         add(play);
13         play.addActionListener(this);
14         audioClip = getAudioClip(getCodeBase(), "sirenpolice.wav");
15     }
16     public void actionPerformed(ActionEvent ae) {
17         Button source = (Button)ae.getSource();
18         audioClip.play();
19     }
20 }
```

2.6   Image Display using applet

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


public class Imager extends Applet
{

  Image picture;

  public void init() {
    picture = getImage(getDocumentBase(),"WBUT9.jpg");
  }

  public void paint(Graphics g) {
    g.drawImage(picture, 40,40, this);
  }

}
```


Figure 6: Image Displayed using applet

2.7   Image Display using applet

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

public class Filer extends Applet
{
    String fileToRead = "test1.txt";
    StringBuffer strBuff;
    TextArea txtArea;
    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();
        }
    }
}
```
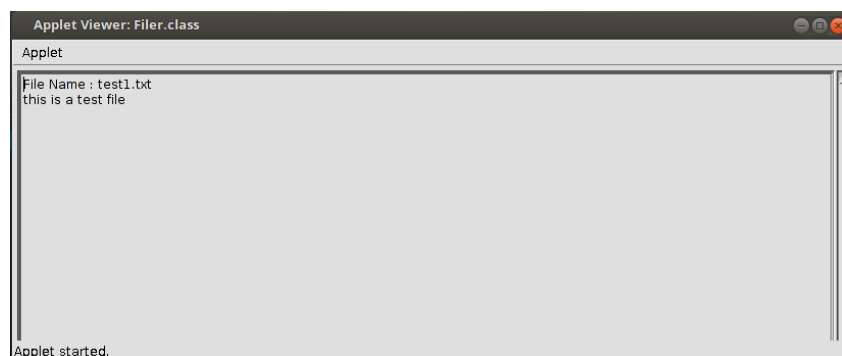

Figure 7: Reading a file using applet