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SBL-oop

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Aim -: Program on Applet to demonstrate Graphics, Font and Color class.

Theory -: An applet is a Java program that runs in a web browser. An applet can fully functional Java application because it has the entire Java API at disposal.

There are some important differences between an applet and a standalone Java application, including the following.

- An applet is a Java class that extends the java.applet.Applet class.
- A main() method is not invoked on an applet and an applet class will not define main().
- Applets are designed to be embedded within an HTML page.
- When a user views an HTML page that contains an applet, the code for the applet is downloaded to the user's machine.
- A JVM is required to view an applet. The JVM can be either a plugin or a web browser.



## (1) Life Cycle of an Applet.

Four methods in the Applet class give you the framework on which you build any serious applet.

- `init()` - The method is intended for whatever initialization is needed for your applet. It is called after the param tags inside been processed.
- `start()` - This method is automatically called the browser calls the `init` method. It is called whenever the user returns to the page containing the applet, other pages.
- `stop()` - This method is automatically called when the user moves off the page on which the applet sits. It can, therefore, be called same applet.
- `destroy()` - This method only called when the shuts down & normally.
- `paint()` - Invoked immediately after the `start()` method, and also man time applet needs to repaint in the browser.

## Sample Program:

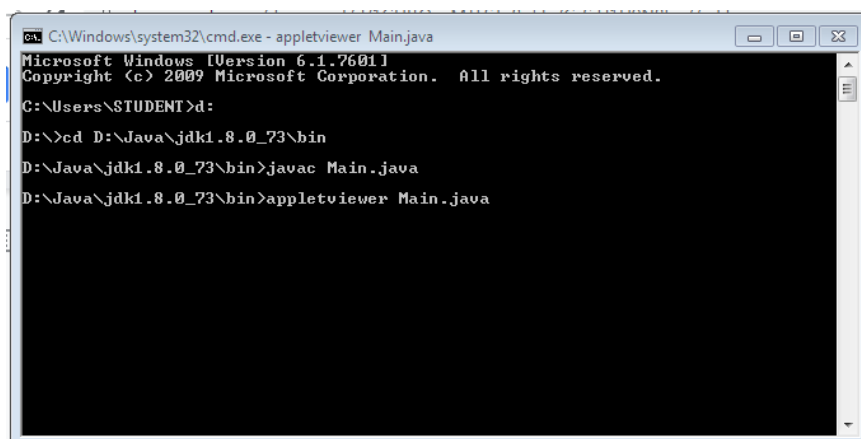
```
import java.applet.*;
import java.awt.*;

public class Main extends Applet
{
    public void paint (Graphics s)
    {
        s.drawLine(70,20,70,50);
        s.drawLine(40,60,100,60);
        s.drawOval(10,10,40,15);
        s.drawOval(90,10,40,15);
        s.drawRect(2,2,150,150);

    }
}

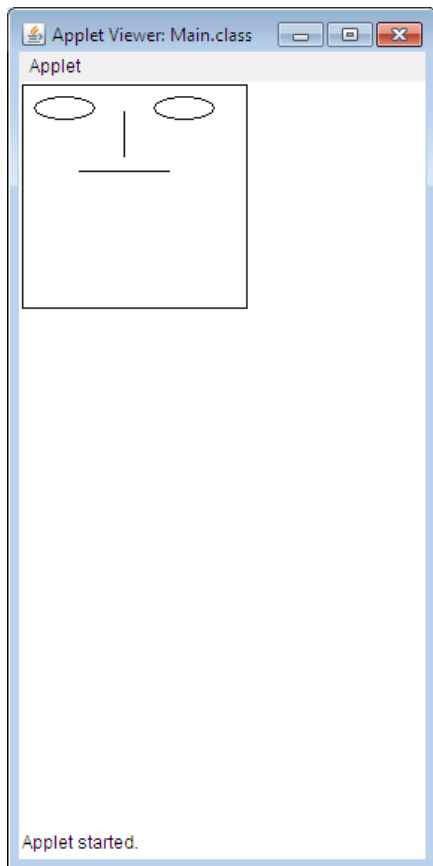
/* <applet code=Main.class WIDTH=800 HEIGHT=500>
</applet> */
```

## Output:



```
C:\Windows\system32\cmd.exe - appletviewer Main.java
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\STUDENT>d:
D:\>cd D:\Java\jdk1.8.0_73\bin
D:\Java\jdk1.8.0_73\bin>javac Main.java
D:\Java\jdk1.8.0_73\bin>appletviewer Main.java
```



### House program:-

```
import java.awt.*;
import java.applet.Applet;
public class House extends Applet{

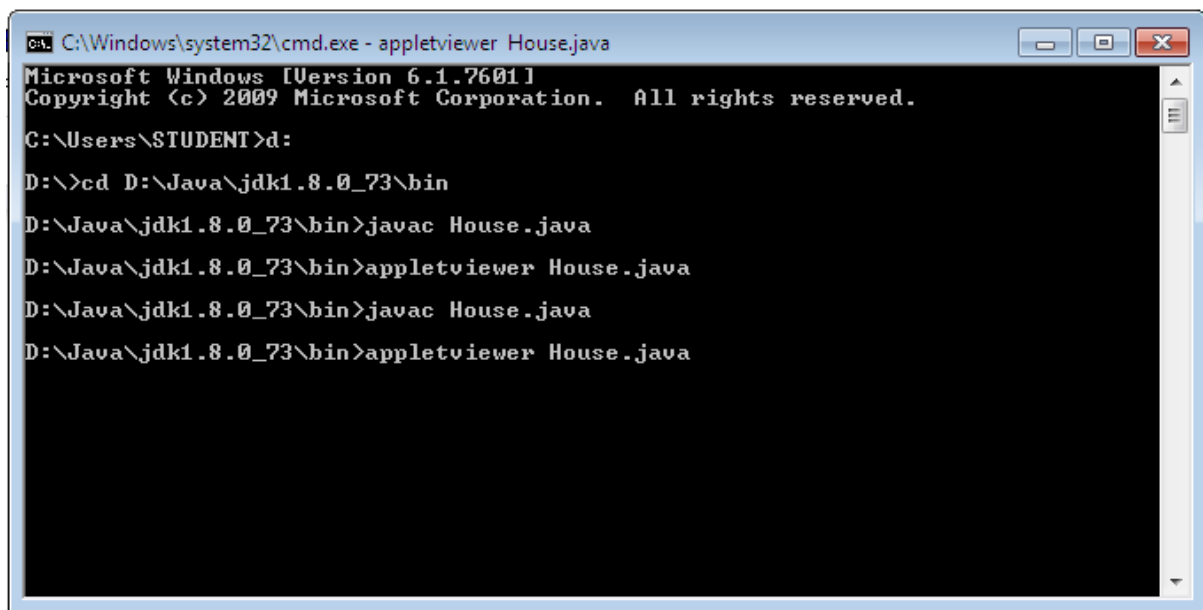
    public void paint(Graphics gp)
    { int [] x = { 150, 300, 225 };
    int [] y = { 150, 150, 25 };
    gp.drawRect(150, 150, 150, 200); //House
    gp.drawRect(200, 200, 50, 150); // Door
    gp.drawOval(200, 75, 50, 50); // Skylight
    gp.drawPolygon(x, y, 3); // Roof
    }
```

```
}
```

```
/*
```

```
<applet code="House.class" width=400 height=450></applet>
```

```
*/
```



```
C:\Windows\system32\cmd.exe - appletviewer House.java
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\STUDENT>d:
D:\>cd D:\Java\jdk1.8.0_73\bin
D:\Java\jdk1.8.0_73\bin>javac House.java
D:\Java\jdk1.8.0_73\bin>appletviewer House.java
D:\Java\jdk1.8.0_73\bin>javac House.java
D:\Java\jdk1.8.0_73\bin>appletviewer House.java
```

