

How to run an Applet?

There are two ways to run an applet

1. By html file.
2. By appletViewer tool (for testing purpose).

Simple example of Applet by html file:

To execute the applet by html file, create an applet and compile it. After that create an html file and place the applet code in html file. Now click the html file.

```
1.      //First.java
2.      import java.applet.Applet;
3.      import java.awt.Graphics;
4.      public class First extends Applet
5.      {
6.      public void paint(Graphics g){
7.      g.drawString("welcome",150,150);
8.      }
9.      }
```

Note: class must be public because its object is created by Java Plugin software that resides on the browser.

myapplet.html

```
1.      <html>
2.      <body>
3.      <applet code="First.class" width="300" height="300">
4.      </applet>
5.      </body>
6.      </html>
```

Simple example of Applet by appletviewer tool:

To execute the applet by appletviewer tool, create an applet that contains applet tag in comment and compile it. After that run it by: appletviewer First.java. Now Html file is not required but it is for testing purpose only.

```
1.      //First.java
2.      import java.applet.Applet;
3.      import java.awt.Graphics;
4.      public class First extends Applet{
5.      public void paint(Graphics g){
6.      g.drawString("welcome to applet",150,150);
7.      }
8.      }
9.      /*
10.     <applet code="First.class" width="300" height="300">
11.     </applet>
12.     */
```

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Displaying Graphics in Applet

java.awt.Graphics class provides many methods for graphics programming.

Commonly used methods of Graphics class:

1. **public abstract void drawString(String str, int x, int y):** is used to draw the specified string.
2. **public void drawRect(int x, int y, int width, int height):** draws a rectangle with the specified width and height.
3. **public abstract void fillRect(int x, int y, int width, int height):** is used to fill rectangle with the default color and specified width and height.
4. **public abstract void drawOval(int x, int y, int width, int height):** is used to draw oval with the specified width and height.
5. **public abstract void fillOval(int x, int y, int width, int height):** is used to fill oval with the default color and specified width and height.
6. **public abstract void drawLine(int x1, int y1, int x2, int y2):** is used to draw line between the points(x1, y1) and (x2, y2).
7. **public abstract boolean drawImage(Image img, int x, int y, ImageObserver observer):** is used draw the specified image.
8. **public abstract void drawArc(int x, int y, int width, int height, int startAngle, int arcAngle):** is used draw a circular or elliptical arc.
9. **public abstract void fillArc(int x, int y, int width, int height, int startAngle, int arcAngle):** is used to fill a circular or elliptical arc.
10. **public abstract void setColor(Color c):** is used to set the graphics current color to the specified color.
11. **public abstract void setFont(Font font):** is used to set the graphics current font to the specified font.

Example of Graphics in applet:

1. **import** java.applet.Applet;
2. **import** java.awt.*;
3. **public class** GraphicsDemo **extends** Applet
4. {

```
5.      public void paint(Graphics g){
6.      g.setColor(Color.red);
7.      g.drawString("Welcome",50, 50);
8.      g.drawLine(20,30,20,300);
9.      g.drawRect(70,100,30,30);
10.     g.fillRect(170,100,30,30);
11.     g.drawOval(70,200,30,30);
12.     g.setColor(Color.pink);
13.     g.fillOval(170,200,30,30);
14.     g.drawArc(90,150,30,30,30,270);
15.     g.fillArc(270,150,30,30,0,180);
16.     }
17.     }
```

myapplet.html

```
1.      <html>
2.      <body>
3.      <applet code="GraphicsDemo.class" width="300" height="300">
4.      </applet>
5.      </body>
6.      </html>
```