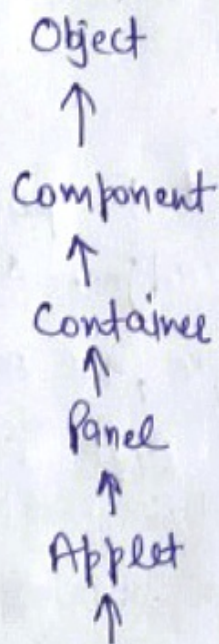


## Java Applet

- ① A special type of program i.e. embedded in the webpage to generate the dynamic content. It runs inside the browser and works at client side.

### ↳ Hierarchy of Applet



### ↳ Lifecycle of <sup>Java</sup> Applet

- i) Applet is initialized.
- ii) Started
- iii) Painted
- iv) Stopped
- v) Destroyed

- <sup>JApplet</sup>  
 java.applet.Applet class
- ↳ For creating any applet java.applet.Applet class must be inherited.
- It provides four life cycle methods of applet.

- i) public void init(): - To initialize the applet.  
It is invoked only once.
- ii) public void Start(): - Invoked after init() method or browser is maximized.  
Used to start applet.
- iii) public void stop(): - To stop applet.  
Invoked when applet is stop or browser is minimized.
- iv) public void destroy(): - Used to destroy applet.  
Invoked only once.

java.awt.Component class: - Provides one life cycle method of javaapplet.

public void paint(Graphics g): - Used to paint the Applet. It provides Graphics class object that can be used for drawing oval, rectangle, arc etc.

↳ who is responsible to manage the life cycle of an applet?

Ans → Java Plug-in Software.

↳ How to run an applet?

i) By html file.

ii) By applet viewer tool (for testing purpose)



↳ Applet by html file:-

Create an applet



Compile it



Create an html file



Place the applet code in html file



Click the html file

// First.java

```
import java.applet.Applet;
```

```
import java.awt.Graphics;
```

```
public class First extends Applet {
```

```
    public void paint (Graphics g)
```

```
    {
```

```
        g.drawString ("welcome", 150, 150);
```

```
    }
```

```
}
```

Note:- Class must be public because its object is created by Java plugin software that resides on the browser.



↳ myapplet.html

```
<html>
<body>
<applet Code = "First.class" width = "300" height = "300">
</applet>
</body>
</html>
```

↳ Applet by appletviewer tool :-

- ① To execute applet by appletviewer tool, create an applet that contains applet tag in comment and compile it.
- ② After that run it by appletviewer First.java.
- ③ ~~Now~~ now, HTML file is not required but it is for testing purpose only.

// First.java

```
import java.applet.Applet;
import java.awt.Graphics;
public class First extends Applet {
    public void paint(Graphics g)
    {
        g.drawString("welcome to applet", 150, 150);
    }
}
/*
<applet Code = "First.class" width = "300" height = "300">
</applet>
```

```
c:\> javac First.java
c:\> appletviewer
      First.java
```





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DETAILED LECTURE NOTES

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↳ Displaying Graphics in applet:-

```
import java.applet.Applet;  
import java.awt.*;  
public class GraphicsDemo extends Applet  
{  
    public void paint(Graphics g)  
    {  
        g.setColor(Color.red);  
        g.drawString("welcome", 50, 50);  
        g.drawLine(20, 30, 20, 200);  
        g.drawRect(70, 100, 100, 150);  
        g.fillRect(170, 100, 100, 150);  
        g.drawOval(70, 200, 100, 300);  
        g.setColor(Color.pink);  
        g.fillOval(170, 200, 100, 300);  
        g.drawArc(90, 150, 100, 100, 0, 180);  
        g.fillArc(270, 150, 100, 100, 0, 180);  
    }  
}
```



my applet.html

<html>

<body>

<applet code="Graphics Demo.class" width="320"  
height="320">

</applet>

</body>

</html>