

Course Name: A Level (2nd Sem)
Topic: Applets in Java

Subject: JAVA
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Applets:

Applets are small Java applications that can be accessed on an Internet server, transported over Internet, and can be automatically installed and run as a part of a web document.

After a user receives an applet, the applet can produce a graphical user interface. It has limited access to resources so that it can run complex computations without introducing the risk of viruses or breaching data integrity.

Any applet in Java is a class that extends the `java.applet.Applet` class.

An Applet does not have a main method.

An Applet is a program that is loaded and executed by another program – usually a browser or appletviewer.

JVM creates an instance of the applet class and invokes `init()` method to initialize an Applet.

Hierarchy of Applet:

Object<--Component<--Container<---Panel<----Applet<---JApplet

Lifecycle of Java Applet:

- 1)Applet is initialized.
- 2)Applet is started.
- 3)Applet is painted.
- 4)Applet is stopped.
- 5)Applet is destroyed.

For creating any applet `java.applet.Applet` class must be inherited. It provides 5 life cycle methods of applet.

- 1)**public void init():** is used to initialize the Applet. This method is called only once during the run time of applet.
- 2)**public void start():** is invoked after the init() method or browser is maximized. It is used to start the Applet.
- 3)**public void paint():**The paint() method is called each time an AWT-based applet's output must be redrawn. The paint() method has one parameter of type Graphics. This parameter will contain the graphics context, which describes the graphics environment in which the applet is running
- 4)**public void stop():** is used to stop the Applet. It is invoked when Applet is stop or browser is minimized.
- 5)**public void destroy():** is used to destroy the Applet. It is invoked only once.

How to run an Applet?

1) By html file:

A.java

```
import java.applet.Applet;
import java.awt.Graphics;
```

```
public class A extends Applet {
public void paint(Graphics g) {
g.drawString("welcome to first applet class",200,200);
} }

```



A.html

```
<html>
<body>
<applet code="A.class" width="200" height="270">
</applet>
</body>
</html>
```

This program will draw a string with x,y coordinate with the help of drawstring method.

Note:

- The above program should be run on eclipse IDE and jdk 1.8 or below.
- The html method is for knowledge only because modern browsers don't support java applets as it is an obsolete technology.