



Applet revisited

```
import java.applet.Applet;  
import java.awt.Graphics;  
  
public class HelloWorld extends Applet{  
    public void paint(Graphics g){  
        g.drawString("Hello World!", 150, 150);  
    }  
}
```

```
<html>  
  <body>  
    <applet code="HelloWorld.class" width="300" height="300">  
    </applet>  
  </body>  
</html>
```

Applet Viewer: HelloWorld.class

Applet

Hello World !

Applet started.



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Basic structure of an applet

Import Section

Part 1

```
public class NewAppletName extends Applet {
```

Part 2

Variable declaration(s)

Part 3

Part 4

Method(s) for object interaction declared and defined here

Java code to accomplished a task

```
}
```



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```



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Basic methods in applet

- `public void paint (Graphics g)`
 - To draw something within an applet
- `public void destroy()`
 - To remove an applet from memory completely

```
import java.applet.Applet;  
import java.awt.Graphics;  
  
public class HelloWorld extends Applet{  
    public void paint(Graphics g) {  
        g.drawString("Hello World!", 150, 150);  
    }  
}
```





Basic methods in applet

```
// Use of init( ) method in an applet //
```

```
import java.applet.Applet;  
import java.awt.Graphics;  
  
public class HelloWorld extends Applet{  
    public void init( ) {  
        resize(200,200);  
    }  
  
    public void paint(Graphics g){  
        g.drawString("Hello World!",150,150);  
    }  
}
```



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Basic methods in applet

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```



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24:06



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35:55

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24:06/35:55





Input passing to an applet

```
// Use of init( ) to pass value through HTML to applet //
```

```
import java.applet.*;  
import java.awt.*;  
  
public class RectangleTest extends Applet {  
    int x, y, w, h;  
    public void init ( ) {  
        x = Integer.parseInt(getParameter ( " xValue" ));  
        y = Integer.parseInt(getParameter ( " yValue" ));  
        w = Integer.parseInt(getParameter ( " wValue" ));  
        h = Integer.parseInt(getParameter ( " hValue" ));  
    }  
  
    public void paint ( Graphics g ) {  
        g.drawRect (x, y, w, h );  
    }  
}
```





Input passing to an applet

Corresponding HTML document containing this applet and providing parameter values will be :

```
<applet code = " RectangleTest"  width = 150  height = 100 >  
  < param name = xValue  value = 20 >  
  < param name = yValue  value = 40 >  
  < param name = wValue  value = 100>  
  < param name = hValue  value = 50 >  
</applet >
```





Input passing to an applet

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// Use of init( ) to pass value through HTML to applet //
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```
import java.applet.*;  
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public class RectangleTest extends Applet {  
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        h = Integer.parseInt(getParameter ( " hValue" ));  
    }  
  
    public void paint ( Graphics g ) {  
        g.drawRect (x, y, w, h );  
    }  
}
```





Input passing to an applet

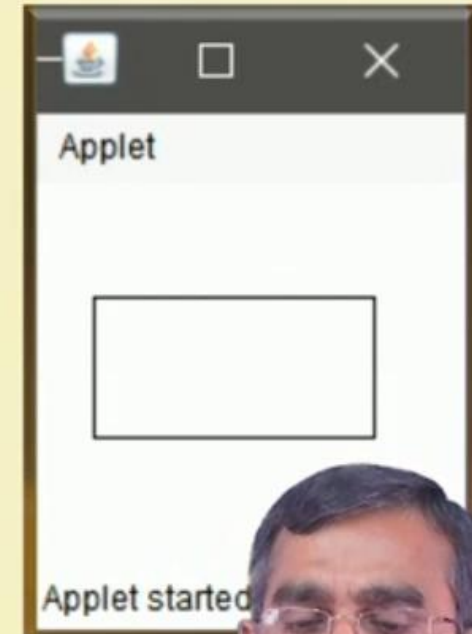
```
<applet code = " RectangleTest"  width = 150  height = 100 >  
  < param name = xValue  value = 30 >  
  < param name = yValue  value = 30 >  
  < param name = wValue  value = 30 >  
  < param name = hValue  value = 30 >  
</applet >
```





Input passing to an applet

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<applet code = " RectangleTest"  width = 150  height = 100 >  
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  < param name = yValue  value = 40 >  
  < param name = wValue  value = 100>  
  < param name = hValue  value = 50 >  
</applet >
```



31:10 / 35:55



Basic methods in applet

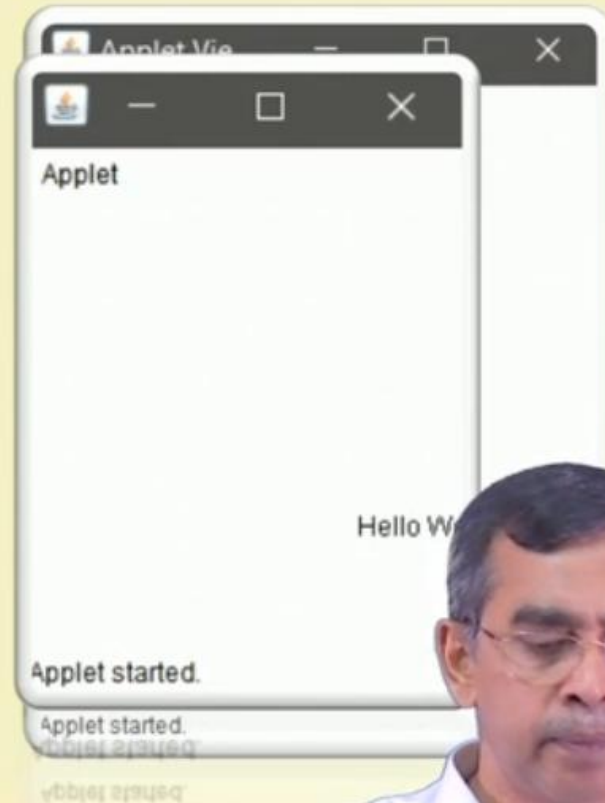
```
// Use of init( ) method in an applet //

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

public class HelloWorld extends Applet{
    public void init( ) {
        resize(200,200);
    }

    public void paint(Graphics g){
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```
<html>
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    }

    public void paint ( Graphics g ) {
        g.drawRect(x, y, w, h);
    }
}
```

Handwritten note: g.drawRect(x, y, w, h);





Application versus Applet



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Application versus applet

Document section (optional)

Package statement (optional)

Interface statement (optional)

Class definition(s) (optional)

Main class definition

```
{
    main method definition
}
```

Basic structure of an Application

Import Section

Part 1

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Java code to accomplished a task

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Basic structure of an Applet



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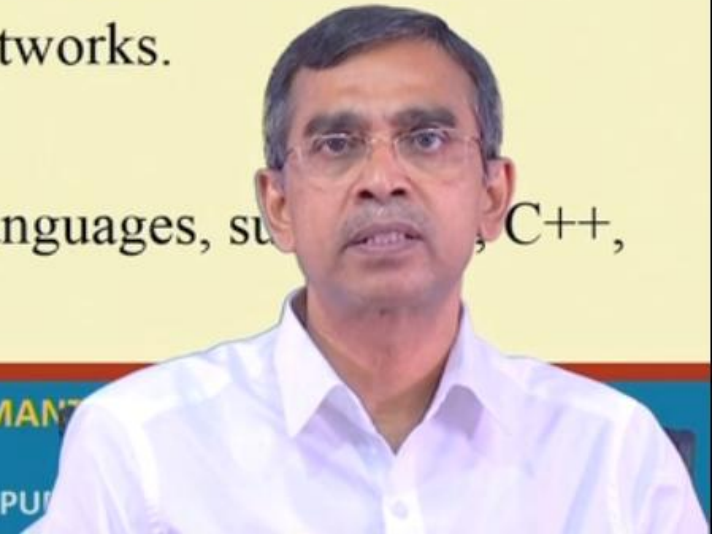
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13:47
11-11-2018



Application versus applet

- Applets **do not use main() method** for initiating the execution of code. Applets, when loaded, automatically call certain methods of **Applet class** to start and execute the code in applets.
- Unlike application (stand alone), applets **cannot be run independently**. They are to be **embedded in HTML pages** as applet code, which browser can run.
- Applet **cannot read from or write to a file** in the local computers.
- Applet **cannot communicate with other servers** in the networks.
- Applet **cannot run any program** from local computers.
- Applets are **restricted from using libraries** from other languages, such as C++, etc.





In today's demonstration

01:18 / 1:00:37

- a) Writing and running a Java applet using HTML file
 - i. *Welcome applet program*
 - ii. *Hello world Applet*
 - iii. *Resize applet program*
 - iv. *Applet Background color change*
 - v. *Specifying Applet Parameters through HTML*
- b) Writing and running a Java applet without using HTML file



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