

# Object Oriented Programming

## Week 11 Part 2 Deploying Applets

# Lecture

- Steps to Applet Deployment
- The <applet> tag
- The <object> tag

# Steps to Applet Deployment

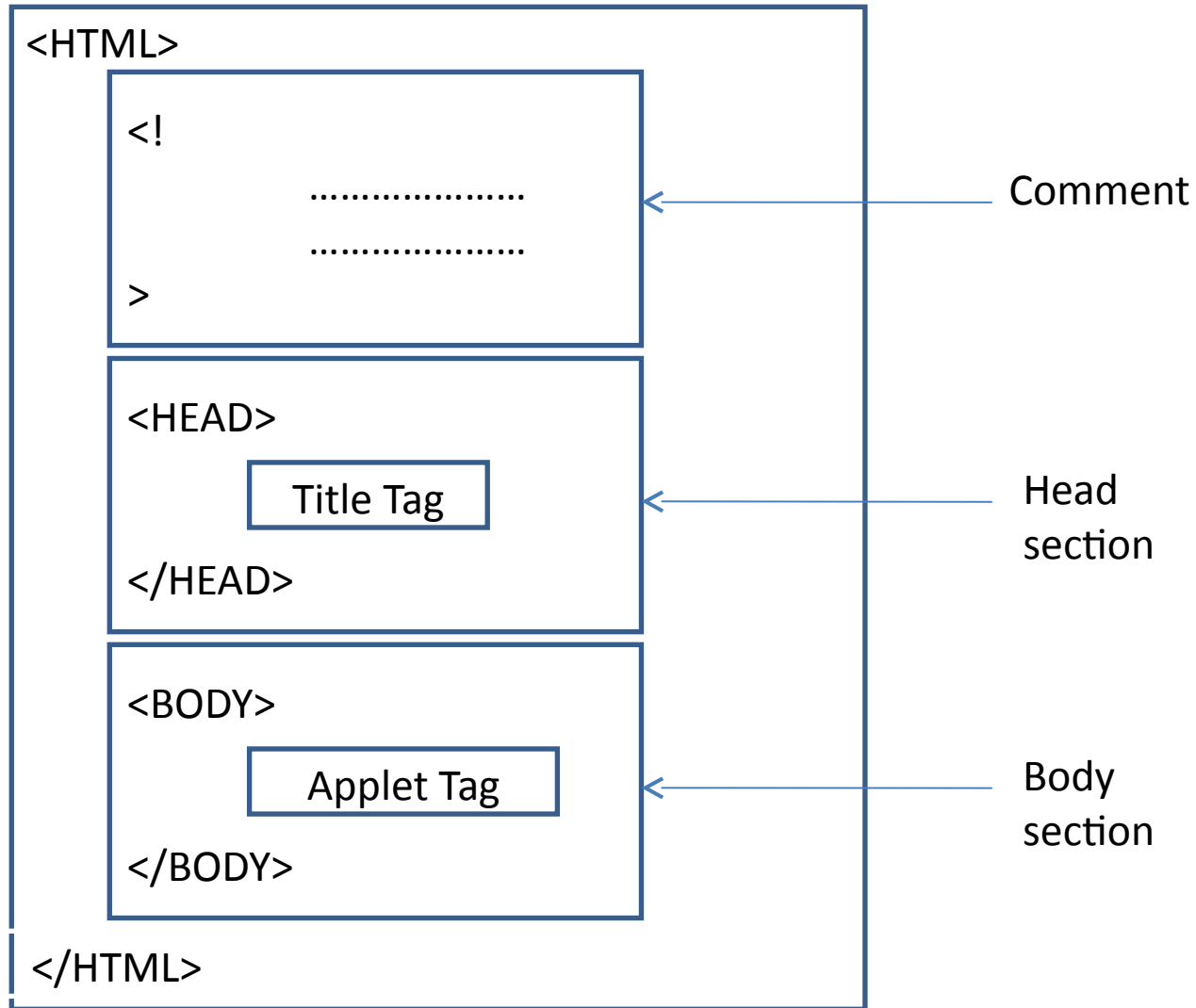
# Steps to Deploy Applet on Web Page

- 1) Write applet java file
- 2) Compile applet to class file
- 3) Create Web page
- 4) Add <applet> tag to web page
- 5) Put Web page on Web server public\_html

# Compile Applet to Class File

- `Javac <source>.java`
- Produces `<source>.class`
- Compiler errors are printed on standard error

# Create a web page



# Using the <applet> tag

- The applet tag is not defined in HTML5.
- Instead, applets are loaded using <embed> or <object>
- Most browser security will not allow applets to run.
- Java security needs to be set up the computer running the applet in a way that is considered dangerous.

# Applet Tag



# Applet tag

```
<APPLET>  
  CODE=hellojava.class  
  WIDTH=400  
  HEIGHT=200>  
</APPLET>
```

- Note: this HTML will not work with modern browsers. The `<applet>` tag is no longer defined in HTML

# Adding applet to HTML file

- Note: this HTML will not work with modern browsers. The `<applet>` tag is not defined in HTML5

```
<html>
<head>
  <title>
    welcome to java applets
  </title>
</head>
<body>
  <center>
    <h1> welcome to world of applet </h1>
  </center>
  <br>
  <center>
    <APPLET
      CODE=hellojava.class
      WIDTH=400
      HEIGHT=200>
    </APPLET>
  </center>
</body>
</html>
```

# Applet tag attributes

- Code= AppletFileName.class
  - Codebase=codebase\_url
  - Width=pixels
  - Height=pixels
  - Name= applet\_instance\_name
  - Align=Alignment
  - Hspace=pixels
  - Vspace=pixels
- The <applet> tag is not defined in HTML5

# Object Tag

# Code Compiled by Eclipse

Eclipse puts class files in bin

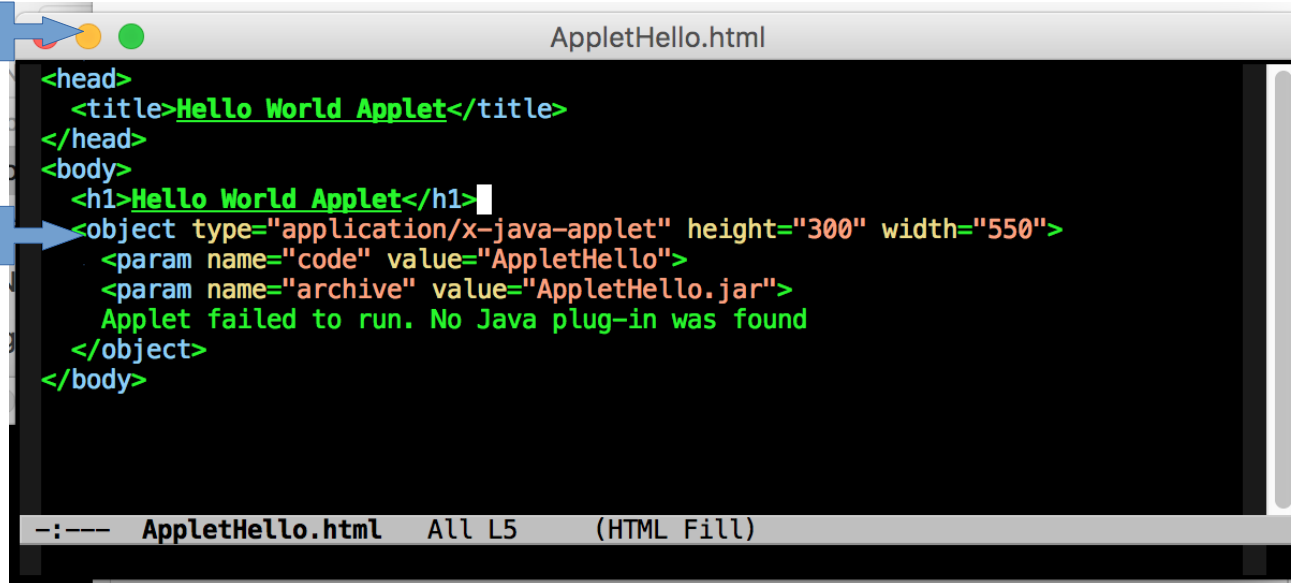
HTML file also in bin

```
example — -bash — 80x24
[example> pwd
/Users/nathanielmartin/Documents/mars/workspace/ExampleApplets/bin/oop/example
[example> ls
AppletDispNum.class      AppletHello.jar      JAppletHello.class
AppletHello.class       AppletStates.class
AppletHello.html        JAppletHello$1.class
example> ]
```

# HTML file

AppletHello.html

Object tag loads AppletHello.jar



```
<head>
  <title>Hello World Applet</title>
</head>
<body>
  <h1>Hello World Applet</h1>
  <object type="application/x-java-applet" height="300" width="550">
    <param name="code" value="AppletHello">
    <param name="archive" value="AppletHello.jar">
    Applet failed to run. No Java plug-in was found
  </object>
</body>
```

# Object Tag

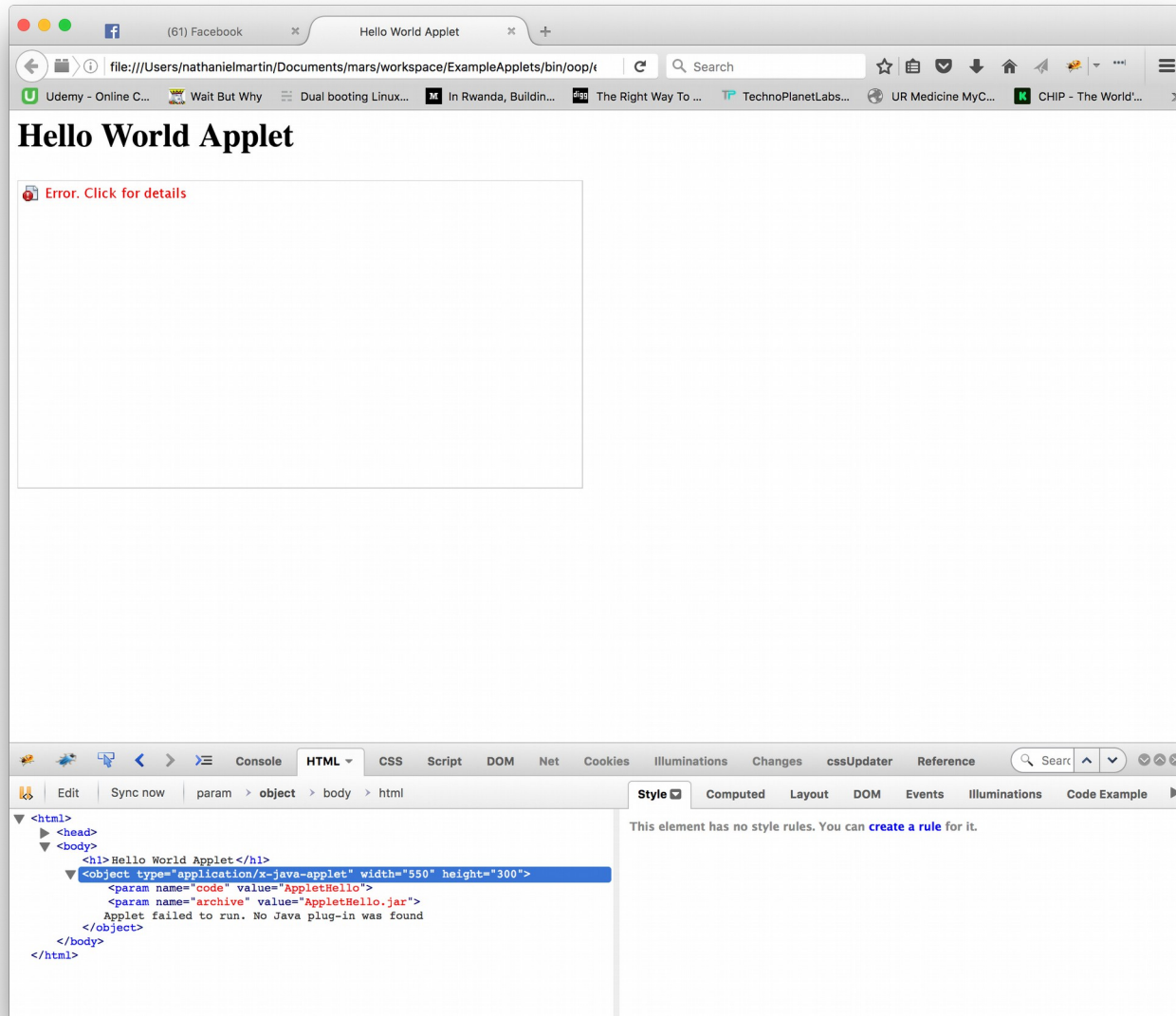
```
▼ <html>
  ▶ <head>
  ▼ <body>
    <h1>Hello World Applet</h1>
    ▼ <object type="application/x-java-applet" width="550" hei
      <param name="code" value="AppletHello">
      <param name="archive" value="AppletHello.jar">
      Applet failed to run. No Java plug-in was found
    </object>
  </body>
</html>
```

Object tag : two parameters

Displays if Java plug-in not found

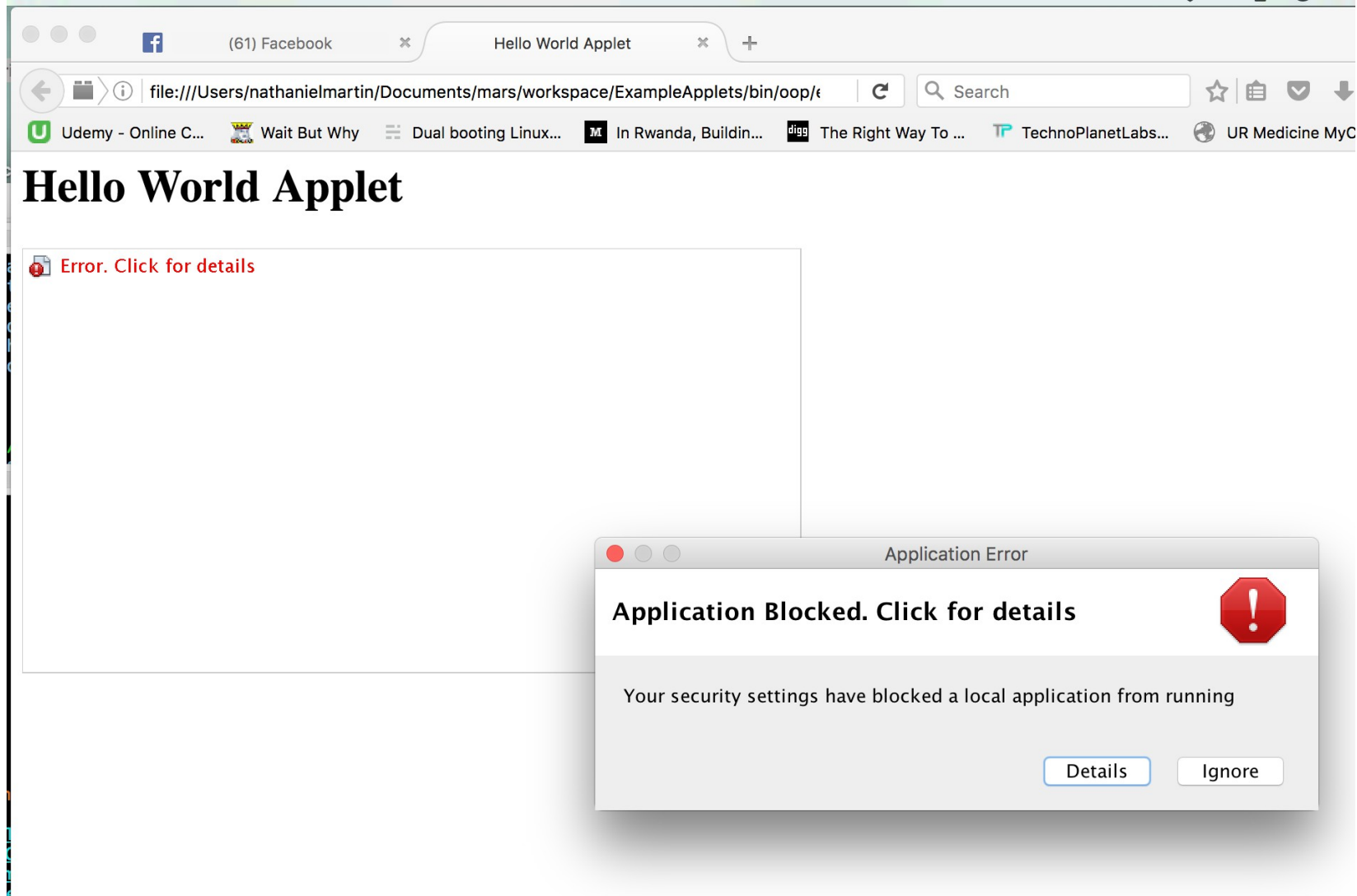
- Object attributes: type, width and height
- Code parameter: name of program
- Archive parameter: name of jar file

# Output





# Error message



# Applet Web Deployment Take Away

- Don't do it.
- There are better ways to deploy Web applications
- Deploying applets require complicated set up of both the server and the client
- Loading applets onto the client requires unsafe Java settings