

ANNOUNCEMENTS

❖ Project #6

STORYBOARDS

- ❖ What are they?
- ❖ Why you want to use them?

APPLETS

- ❖ Applet – Java program that can be run in a browser. The program is represented by a file with the .class extension.
- ❖ Web sites with Java Applets
 - ❖ <http://javaboutique.internet.com/javasource/>
 - ❖ Sites provide instructions on how to install the applet and the parameters you need to specify.
 - ❖ <http://freewarejava.com/>
- ❖ Two main types of Java Applets
 - ❖ **Type 1:** You only need one file (a <fileName>.class file)
 - ❖ **Type 2:** You need other files besides the main <fileName>.class file). A folder with all the required files needs to be specified.
- ❖ Example: AppletExampleOne (Type 1)
 - ❖ Based on <http://javaboutique.internet.com/Mdrain/>
- ❖ Example: AppletExampleTwo (Type 2)
 - ❖ Based on <http://javaboutique.internet.com/BallDrop/>

SERVER SIDE INCLUDES

- ❖ What are they?
- ❖ Why you want to use them?
 - ❖ To include a file in other files.
 - ❖ To display file modification time.
 - ❖ To display current date.
 - ❖ Others
- ❖ **Example:**
 - ❖ <http://www.cs.umd.edu/~nelson/classes/122/webPageEx122/resources.shtml>

WEB PAGE EXAMPLE (TAB-BASED PAGE)

❖ Example:

- ❖ <http://www.cs.umd.edu/~nelson/classes/122/webPageEx122/resources.shtml>

RECURSION

- ❖ A recursive function is one that “calls itself”.
- ❖ One approach to see this process is to visualize that, instead of the function calling itself, the function calls another function that performs the same task as the original one.
- ❖ Nature has several examples of recursive phenomena.
- ❖ A typical recursive example is the computation of the factorial.
- ❖ Definition of factorial (non-recursive)

$$n! = n * n-1 * n-2 * ... 1$$

Definition of factorial (recursive)

$$n! = n * (n-1)!$$

- ❖ Let's implement a recursive factorial function.
- ❖ Computation of the fibonacci series is another example of recursion
- ❖ Let's draw a call tree that illustrates the set of calls that are taking place.