

Introduction to Java

Handout-1b

Basic concepts

- Objective: discuss the three types of programs in Java:
 - Applications
 - Applets
 - Servlets

Applications

- Executed locally (are not sent over the network)
- Does not need a browser to execute
- Need to have a main() method
 - Always `public static void main(String[] args)`

Applets

- Executed on the client side (browser)
 - The browser has to be Java enabled
 - Applet is destroyed at the end of session
- Applets can be used to create fancy web pages, drop-down menus, advanced forms, custom multi-media players, etc.

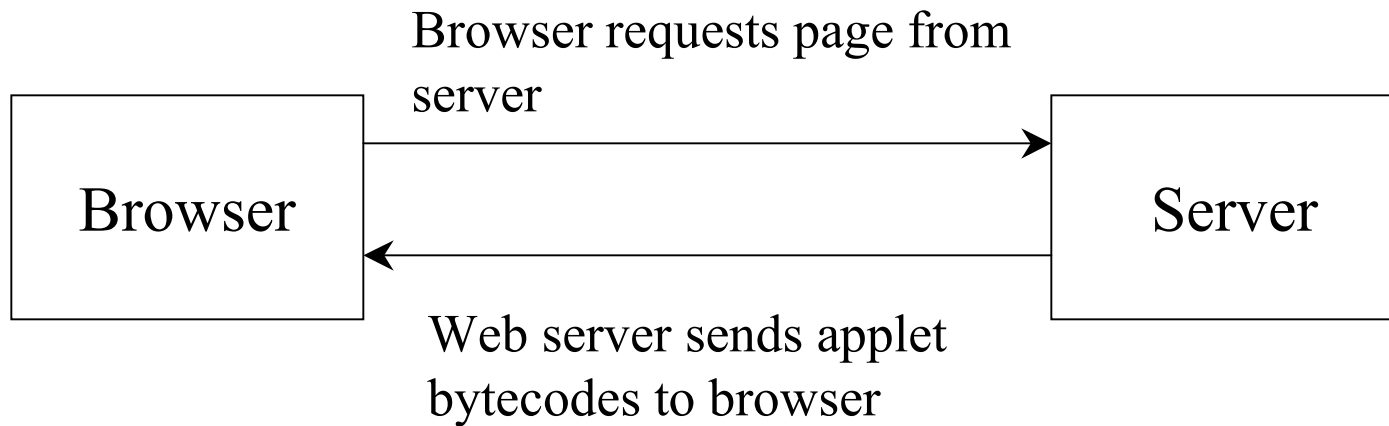
Applets (II)

- You can use the *appletviewer* command to test your applets
 - Create a file named myapplet.html with the following content and save it in the same directory where you have the myapplet.class file:

```
<APPLET CODE="myapplet.class" WIDTH=580 HEIGHT=50> </APPLET>
```

- Execute:
 - C:\cs402> appletviewer myapplet.html

Applets (III)



Servlets

- Java programs executed on the server side
- Need a web server
- Servlets are substitutes to CGIs
 - CGIs usually written in C, C++, Perl, PHP
 - Heavy processes (start, execute, exit)
 - Servlets don't exit
- Check out <http://jakarta.apache.org/>

Java features

- Portability
 - Compiled code can run on any JVM
 - The JRE is however OS dependent
- Multi-threading
- OO programming language
- Automatic garbage collection
- Security
- No pointers
- Exception handling
- Rich set of libraries