CSE 403

The Mythical Servlet
Goals

- Introduce basic servlet terminology
- Formally introduce homework 2
- Walkthrough of build & deployment
- Group discussion of MMM
What is a Servlet?

- Server-side Java Program
- Equivalent to a CGI app
- Efficient
- Portable
- Powerful
- Stand-alone or extension
  - We’re using Tomcat on cubist.cs.washington.edu
Demo Example

Hello World!
Where do I find this stuff?

/*For generic, protocol independent servlet functionality*/
import javax.servlet.*;

/*For servlets that will use the http protocol (WWW Based)*/
import javax.servlet.http.*;

Tutorial @
http://java.sun.com/webservices/docs/1.0/tutorial/doc/Servlets.html

API @
GenericServlet

- Protocol Independent
- Override `service()` when extended
- Must write one’s own means of handling requests

Image from *Java Servlet Programming* by Jason Hunter
HttpServlet

- Extends `GenericServlet()`
- **Override** `doGet(...)` & `doPost(...)`
- Already understands http
- Majority of servlets extend
import javax.servlet.*;
import javax.servlet.http.*;

public class ServletSkeleton extends HttpServlet {
    public void doGet(HttpServletRequest req, HttpServletResponse res)
        throws ServletException, IOException {}

    public void doPost(HttpServletRequest req, HttpServletResponse res)
        throws ServletException, IOException {}
}
## GET vs POST

<table>
<thead>
<tr>
<th>GET</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td>- retrieving information</td>
<td>- send information</td>
</tr>
<tr>
<td>- html/images</td>
<td>- uploads/forms</td>
</tr>
<tr>
<td>- parameters listed in URL</td>
<td>- parameters hidden within header</td>
</tr>
</tbody>
</table>
HW2 Prep Walkthrough
Did you do your reading?

What project inspired Brooks to write this book?
Programming :) / :(

What joys does computer programming have?

What woes?
Project Failure

What are some common reasons for project failure?

What is Brooks’?

All programmers are optimists:
“All will go well”
Scheduling

1/3 design
1/6 coding
1/4 component testing
1/4 system testing
Brooks’ Law

Adding manpower to a late software project will make it later.

Why?
The Surgeon Model

Fig. 3.1 Communication patterns in 10-man programming teams