Off Topic

• Nerd Nite September: dinosaurs, comics, and viruses

• Saturday, September 10th, 6:30pm - 9:30pm

• at DC 9
CMSC 433
Programming Language Paradigms and Technologies
William Pugh

HTTP and Servlets
Sept 6th, 2011
Getting help

• Class piazza page
• http://stackoverflow.com
• http://www.coderanch.com/forums
• http://groups.google.com/group/google-appengine-java
• http://gae-java-persistence.blogspot.com/
Play with it

• Got a question? Try it out yourself.
• The only way to learn a technology
• For local appengine deployments, access admin console at
  http://localhost:8888/_ah/admin
Notes:

- You need to have a JDK installed, not a JRE
Class calendar

- Google calendar, posted on course web page
  - can subscribe in your own calendar
- Project 1: due Monday, Sept 19th
Project 1

• Checkout 433-p1 from your linuxlab repository
  • not quite ready

• Extension of the guestbook
  • add the ability to vote +/- on comments/ideas
  • guard against Cross site scripting
Background

- You should already understand:
  - domain names
  - DNS
  - IP address
  - port
  - TCP socket
- If you don’t, I apologize on behalf of the CS department
- catch up on your own
Servlets and web containers

- Get used to editing XML and indirection
- war/ is the root directory for web content
- war/WEB-INF contains meta information
- war/WEB-INF/web.xml contains mapping from URL’s to servlet names and from servlet names to classnames
public void doGet(HttpServletRequest req, HttpServletServletResponse resp)
    throws IOException { … }

public void doPost(HttpServletRequest req, HttpServletServletResponse resp)
    throws IOException { … }
HttpServletRequest

- Contains everything about the request from the user
HttpServletResponse

- Used to generate a response
- set content type, content, status code
javax.servlet.Filter

```java
public void doFilter(
    ServletRequest req,
    ServletResponse response,
    FilterChain chain)
    throws IOException, ServletException { … }
```

- By editing `web.xml`, can have a filter applied to a range of requests (including all of them)
- Can do some checking, logging, set up response
  - must then chain request to get to other filters and final destination (servlet, jsp or html)
ServletRequest vs HttpServletRequest

- Filters are designed to handle more than just http
- thus, the parameters are not http specific
- But often, you just want methods only available in http versions

- What do you do?
  - Just cast and assume will only see http requests?
  - will get runtime exception if you see non http