Off Topic

- Computer Science and Telecommunications Board
- Next Tuesday, Sept 13th, 2:30-4pm
- [http://sites.nationalacademies.org/CSTB/CSTB_064128](http://sites.nationalacademies.org/CSTB/CSTB_064128)
Agenda

- Computing...the future?
  - Marjory Blumenthal, Georgetown University
- Moore's Law and Computer Architecture Paves the Information Highway
  - David A. Patterson, University of California at Berkeley
- How did Software Get so Big Without Collapsing
  - Butler Lampson, Microsoft Research
- The Ascendancy of Social Computing
  - Robert Kraut, Carnegie Mellon University
- Reception
CMSC 433
Programming Language Paradigms and Technologies
William Pugh

HTTP and Servlets
Sept 8th, 2011
Apologizes

• Once again, apologies for being slow in getting stuff done
• Slides for last tuesday and today are posted
• Cookie signups:
  • tomorrow, 2-3pm,
  • Wednesday, Sept 14th, 10-11am
Project distribution

• 433-p1 and BetterGuestbook have been distributed to your linuxlab accounts

• They omit the libraries you need

• In Eclipse, use Properties -> Google -> AppEngine and toggle the app engine version

• this will get Eclipse to add the libraries you need
Idea book

- My project has been distributed to
Topics

• get vs. post
• http sessions
• html forms
• data stores
GET vs. POST

- HTTP defines two standard ways to request a web page, GET and POST
- GET requests put parameters in the URL, after a ?
  - can be bookmarked
  - should not change anything (e.g., buy a book)
- POST requests put parameters in body of request
HTTP sessions

• How does your browser know you are logged into Amazon? How does Amazon know you are logged in?

• Server maintains a session object, with a secret key

• Browser sends key on each request, either in a cookie or in a HTTP parameter

• Generally, all browser windows to a site share the same session
Values in JSTL

- Values can come from any of several scopes
  - page
  - request
  - session
  - application
Datastore

• Google and many other companies have moved away from SQL for many of their operations

• SQL doesn’t scale well to billions of entries and multiple data centers

• Google’s initial replacement was BigTable

• some other frameworks are also in use now
Working with POJO’s

• Directly translate POJO’s to/from datastore
• Many libraries/frameworks for doing so
• Objectify seems very simple and well suited towards Google appengine
Objectify documentation

- Objectify’s documentation is pretty good, we’ll go through it
- Concepts
- Introduction