CS 455/555: Project Logistics

Project teams: Pair Programming

- *Pair programming* is an agile software development technique in which two developers work as a pair together on one workstation. The driver, writes code while the other, the observer or navigator, reviews each line of code as it is typed in. The navigator also considers the “strategic" direction of the work and considers improvements and likely future problems. The two developers switch roles frequently.
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- *Lean Software Development: Building and Shipping Two Versions* by Kate Matsudaira. Communications of the ACM, Vol. 58 No. 12, Pages 56-58. (*Note*: This article will be accessible only on campus or if you are logged in your Boise State account).
  http://cacm.acm.org/magazines/2015/12/194642-lean-software-development/fulltext

Find your buddy!

- Have you take Operating Systems course?
- Have you taken Networks course (with network programming)?
- A solid understanding of multi-threaded programming in any language.

What Language to Use for the Back-end?

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  - Scala (JVM based): LinkedIn, Twitter, New York Times

Java

- Used widely to build distributed systems so there are many supporting libraries available.
- Networking features are in the core of the language: support for TCP/IP, UDP/IP (including multicast), high-performance non-blocking I/O, HTTP / URx support, REST support, XML support, JSON support, and even security features like SSL
- Rich set of data structures are available in core libraries.
- Strong multi-threaded performance. Java supports natively thread creation, locking primitives, wait/notify, multi-threaded data structures, and other more advanced support for complex multi-threaded programming.
- Supports serialization of objects natively. This is needed to send complex data structures over the network.
- Java APIs are used widely in industry. The platform is mature.