Web Service Basics (2)

CS480 Software Engineering
http://cs480.yusun.io
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Announcements
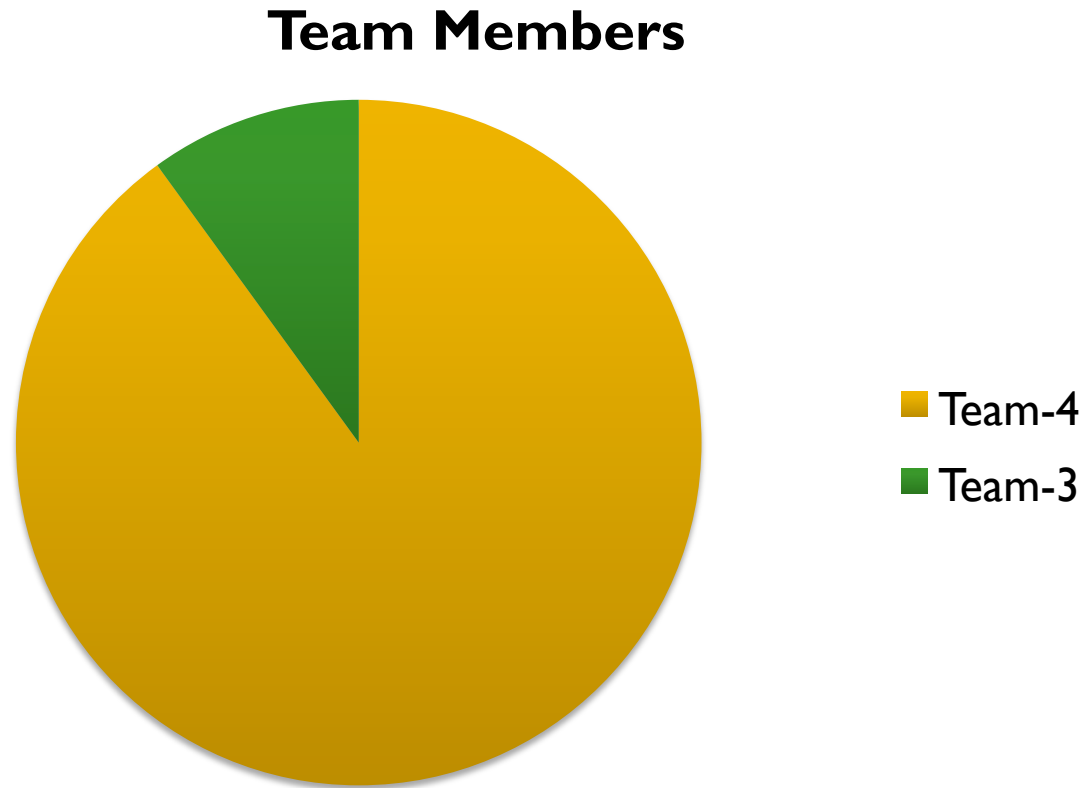
◆ A1 Due!

◆ A2: Finalize the Idea
   ◆ Jan 21 (Wed): Idea Pitch

◆ A3: Git/GitHub Exercise
   ◆ Due on Jan 21 (Wed)

Team Statistics

◆ 10 teams

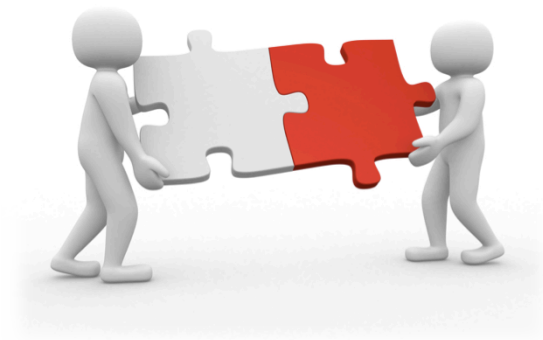**Team Members**

■ Team-4
■ Team-3

The Optimal Number of Co-Founders

Company name	Founders	Total
Microsoft	Bill Gates, Paul Allen	2
Google	Sergey Brin, Larry Page	2
Youtube	Chad Hurley, Steve Chen, Jawed Karim	3
Yahoo!	Jerry Yang, David Filo	2
Overture (formerly Goto.com)	Bill Gross	1
eBay	Pierre Omidyar	1
PayPal	Peter Thiel, Max Levchin	2
Skype	Niklas Zennström, Janus Friis	2
Kazaa	Niklas Zennström, Janus Friis	2
Hotmail	Sabeer Bhatia, Jack Smith	2
Ask.com	Garrett Gruener, David Warthen	2
Excite	Graham Spencer, Joe Kraus, Mark Van Haren, Ryan McIntyre, Ben Lutch, Martin Reinfried	6
Napster	Shawn Fanning	1
Lycos	Dr. Michael Mauldin	1
Amazon	Jeff Bezos	1
Apple	Steve Jobs, Steve Wozniak, Ronald Wayne	3
MySpace	Tom Anderson, Chris DeWolfe	2
FaceBook	Mark Zuckerberg, Dustin Moskovitz, Chris Hughes	3
Netscape	Marc Andreessen, Jim Clark	2
AOL	William von Meister	1
Mirabilis (which engineered ICQ)	Yair Goldfinger, Arik Vardi, Sefi Vigiser, Amnon Amir	4
Digg.com	Kevin Rose	1
Average		**2.09**

The Optimal Number of Co-Founders

◆ A single founder startup becomes too lonely and isolated

◆ If you're unable to find/recruit another co-founder, people may wonder about you, your sales ability or your ability to attract/recruit a great time in the future

◆ At a minimum, you need one technology co-founder and one sales

◆ There's simply too much work to do in the early days

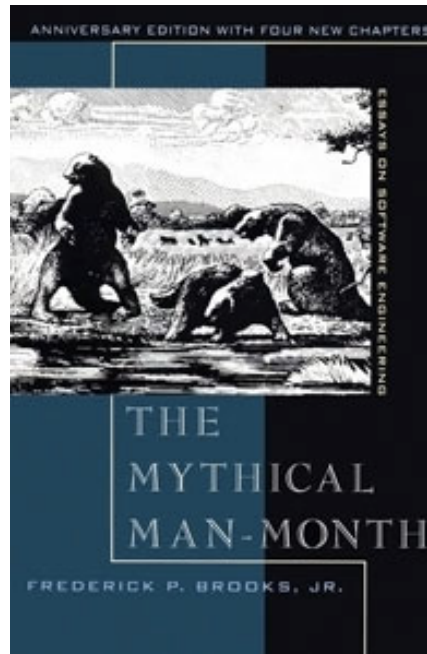◆ Three founders works fine too, but does introduce some potential issues with how to divide up responsibility

http://blogs.msdn.com/b/testing123/archive/2007/02/23/if-you-are-going-to-build-a-startup-how-many-friends-should-you-start-up-with.aspx

http://onstartups.com/tabid/3339/bid/1242/What-s-The-Optimal-Number-Of-Co-Founders-For-A-Startup-2-09.aspx

Golden Rule

Adding manpower to a late software project makes it later.
-- Dr. Frederick Brooks

The Mythical Man-Month

Dr. Frederick Brooks

Java Spring Framework

◆ Java

◆ Web Services

- HTTP

- Java Servlet

- Spring Framework

  ◆ http://spring.io/

- Spring Boot

  ◆ http://projects.spring.io/spring-boot/

- MOOC Course

  ◆ Programming Cloud Services for Android Handheld Systems

  ◆ https://class.coursera.org/mobilecloud-001

@RequestMapping

◆ Map the URL Path to Java method

◆ http://www.journaldev.com/3358/spring-mvc-requestmapping-annotation-example-with-controller-methods-headers-params-requestparam-pathvariable

Store the Data

- Store your data in the file system is a simple option if only a small amount of data is required

- Jackson ObjectMapper
- http://wiki.fasterxml.com/JacksonInFiveMinutes

@Autowired

◆ Manage how to instantiate object instances

◆ http://www.tutorialspoint.com/spring/spring_autowired_annotation.htm

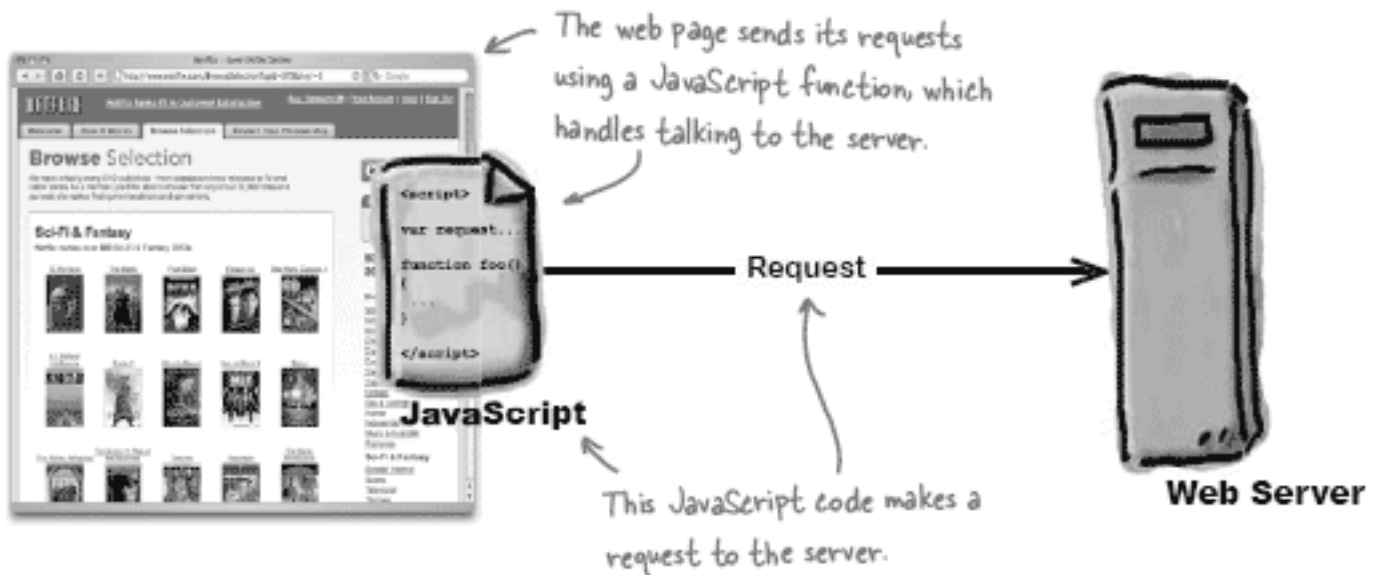# Front-End UI: HTML/CSS

◆ Make nice UI for your web services

Interact with Web Service: JS/Ajax

- Asynchronous JavaScript and XML (AJAX)
- Make HTTP calls in JavaScript

Generate Web Pages Dynamically: FreeMarker

◆ Define a template, feed the data and generate the final HTML