Week #2: CS189A

- Teams formed and selected
- **Getting Started & Design lecture: Prof. Richert Wang**

- Project setup
  - Turn in team info to TA by end of discussion section tomorrow
    - Team name, 1 sentence description of project, github repo (shared with ckrintz and stevebako if private), emails if requested on selection list in piazza
  - Figure out what your team's strengths/weaknesses

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  - Turn in team info to TA by end of discussion section tomorrow
    - Team name, 1 sentence description of project, github repo (shared with ckrinz and stevebako if private)
  - Send group email to mentors (emails in piazza), cc ckrinz,stevebako
    - Start process to schedule first and weekly meeting
  - Schedule daily scrum meetings, mentor meetings, weekly TA mtg
- Plan Sprint I (which starts tomorrow!)
  - Vision statements & sprint planning
- Work on vision statements
  - Send to mentors requesting feedback by end of discussion tomorrow
- Next Monday: Turn in vision statements: email to TA by class end
Sprint Planning: Sprint 1

• Oct 12-25 (10 working days)
• Layout priority list: things to get you started
  – Vision statement
  – Technology investigation
  – Team support tools
    • Github, Trello, Pivotal
  – Start on Product Requirements Doc (PRD) version 1
    • Details on this next Wednesday (week 2 of sprint)
  – Initial prototyping
• Break into tasks
  – Granularity up to you but 1-2 days max per person
  – Go around group and estimate time (1/2day or day)
• Plan to have each team member demo something at end
  – Tasks and sprint
  – Later sprints you will demo overall and individual "stories"
Sprint Planning: Sprint 1

- Oct 12-25 (10 working days)
- Layout priority list: things to get you started
- Break into tasks
- Plan to have demos at end
- Go around group take tasks until each have 10 days worth
  - Remaining task stay in priority order until next sprint
  - This is your Product Backlog
- Setup burndown, update it on every scrum (scribe)
- Scribe (can change over time) records scrum blockers and missed task deadlines
- 50 lines committed per team member per week starting next week
  - Lines can be code, writing (vision/prd), documentation, tests, ...
Technologies to Consider + Ask Mentors

- Work on **tutorials** if new to you
- To support workflow
  - Trello, PivotalTracker, Podio, Jira
  - Github
  - Issue tracking (github, waffle.io)
- Fast prototyping
  - firebase, angularjs, react, atlassian stash
- Continuous builds
  - Jenkins, travis
- Wireframes
  - gomockingbird (mockingbird), balsamiq
- Useful components/technologies
  - Oauth
- Mobile app platforms
- IDEs, programming languages

- Server and cloud:
  - System configuration: Ansible, Puppet, Chef, Saltstack/Saltcloud
  - Virutal servers/object store: AWS, Google, Azure
    - Use free tier & student credits
  - Platforms: Google App Engine, Heroku
  - Mobile Backends: Backendless, Google Endpoints, AWS Lambda
  - Services: MongoLab, Instacluster, Amazon RDS,
  - Hadoop/ElasticMapReduce
  - APIs: Twitter, Facebook, Google technologies (maps/earth/drive)

Development environments:
- Apache JClouds
2-Page Vision Statement

• PDF via email to TA by end of class (class time allocated) on Monday
  – Project Title / Name (can change)
  – Team name, members names/emails
  – Team lead
  – what the project is about
    • What problem the project is solving (**what is innovation, the science, and new core technical advance**)?
    • Why the problem is important
    • How the problem is solved today (if it is)
  – Identify the outcome of the project
  – Define initial project milestones: specification, design, prototyping
  – How do you plan to articulate and design a solution
    • List the implementation platform and technologies will plan to use to develop the solution
    • Overview the process model you will employ to achieve the milestones