Course Overview: CS189A

• Week 1
  – Class: Introduction to SWE, team management, and processes
  – Friday in lieu of discussion section
    • Company representatives present the challenge problems (Pitch Night!)
    • Oct 6th 3:30-8pm in HFH 1104 (attendance mandatory)
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• Week 1
  – Class: Introduction to SWE, team management, and processes
  – Friday in lieu of discussion section
    • Company representatives present the challenge problems (Pitch Night!)
    • Oct 6th 3:30-8pm in HFH 1104 (attendance mandatory)
  – Read the recommended readings on the schedule page

• Week 2
  – Form teams (4-5 members)
  – Identify group leader and scribe
    • Lead: motivator, picks up all loose ends, settles debates/makes decisions
    • Scribe: records scrums, retrospectives, sprint planning, mentor/TA meetings
  – Choose team/project – Select by 5pm Monday (see Claiming process)
  – Write up vision statement (send to mentors for approval) & turn in
    • Wednesday in class (send to Mentors)
    • Update/finalize for turnin on Friday
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• Claiming a project
  – Only complete emails dated after 5pm on Monday Oct 9 considered
  Email to Chandra (ckrintz@gmail.com) with
    • Subject: 189a project selection
    • Sent by group leader (or his/her representative)
    • List of group member names, identify lead and scribe
    • A picture of each group member for public posting
    • List all company participants in order of preference
  – FCFS assignments + algorithm (Gale-shapely)
    • You are not likely to get your top preferences
    • One team per project/company!
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• Week 2
  – Monday Oct 9: Form teams (4-5 members)
    • Identify group leader and scribe
      – Lead: motivator, picks up all loose ends, settles debates/makes decisions
      – Scribe: records scrums, retrospectives, sprint planning, mentor/TA meetings
    • Choose team/project – Select by 5pm (see Claiming process)

  – Wednesday Oct 11: Work on Vision statements and sprint planning
    • Turn in team info to TA by noon
    • (1) Team Google group; (2) Daily scrum schedule, (3) Weekly Mentor meetings; (4) **1-sentence description** to TA via email; (5) Setup Github repo/email TA (add TA/Chandra to team if private)
    • Work on vision statements
      – Send to mentors requesting feedback
    • Plan Sprint I (which **starts Thursday, Oct 12**!)

  – Oct 16: **Turn in vision statements** via email to TA by end of class
CS189A Goals & Requirements

• Four 2-week sprints:
  – Oct 12-25 (PRD v1 – tools, technologies, design);
  – Oct 26-Nov8 (design and prototyping, PRD v1);
  – Nov9-20 (design, prototyping, testing, PRD v2);
  – Nov 21-Dec8 (prototype presentations, prototyping and testing)

• Specify what the product will do
  – Vision statement Due Oct 16
  – Product Requirements Document (PRD)
  – Design tools, brainstorming, coding (tests and implementation)

• Build and test an initial prototype
  – Typically teams iterate on these activities until they converge to a working prototype!

• 189A last two weeks of class + discussion
  – Prototype Demonstration
  – Recorded, order determined randomly
Your Grade

• Attendance at classes and discussion section
  – One miss for class/discussion is allowed with excuse, followed by letter grade decrease per miss)

• Participation in class discussion, questions for speakers

• Weekly substantial contributions (50 LOC each) to code repository

• Completion of all of the project requirements (next slides)

• Demo performance
  – Judging criteria, amount of work put in, robustness, extensiveness

• Group participation: to reflect the level of effort and contributions to the project throughout quarter
Capstone Project Requirements (1/2)

- Use of agile development process with per-sprint task tracking (recommended: Trello or Pivotal Tracker)
- Daily scrums recorded by scribe in shared Google Doc
  - Class/discussion days: last 15 mins of class
  - Shared with Instructor, Mentor, TA, and team
- Weekly meetings (virtual is OK) with mentor (scribe logs)
- Weekly meeting with TA (discussion/class is OK)
- Class/discussion attendance and participation in team activities
  - Bring laptop to class, email Chandra if you don’t have one
- Vision statement turned in by deadline (& approved by mentor)
- Draft 1 & 2 of PRD turned in by deadline
  - Evolve as you design and prototype; approved by mentor
- Working prototype for base functionality demonstrated in the last week of the quarter
Capstone Project Requirements (2/2)

• Use of a code repository (recommended: GitHub)
  – **Ongoing** contributions by all members each week
    • Identify a workflow that works best for your team
    – Can include preparation of requirements documents
• Use of an issue tracker (recommended: Waffle.io or github)
• Documented code
• Automated unit tests and integration and/or functional tests
  – Code defensively!
• Use of user stories and/or use cases for requirements & design
• Use of UML for system requirements modeling and design
• Wireframes for user interfaces if any
• Complete 4 2-week sprints, record retrospectives and planning for each