CSE 391: Cloud Computing

Introduction
Today’s Lecture

• Course Overview
• Course Topics
• Grading
• Logistics
• Academic Integrity Policy
Course Overview (1/2)

- Caveat 1: This is a **special topics elective**.
- Caveat 2: This is my first undergraduate class.

- Cloud Computing:
  - “a model for enabling ubiquitous network access to a shared pool of configurable computing resources” [Wikipedia]
  - Probably the most over-used term in IT
  - We’ll cover the hot topics
    - Some will disagree that all of them are “cloud”
    - Even if that’s true, useful to know anyway

Today is mostly about setting expectations
Course Overview (2/3)

• My purpose for this class:
  – To create a course on Cloud Computing
    • To figure out what is the right material
    • To figure out what are the right assignments
    • To figure out what is the students’ background
  – To teach you about Cloud Computing

• Your goals for this class (should be):
  – To learn about Cloud Computing
  – To help me create a new course
    • Making slides, suggesting assignments, giving me feedback

Note the disconnect in your and my priorities
Course Overview (3/3)

• The “down” sides
  – This is not a polished course
    • In fact, it’s not even a “real” course yet
  – Things may be more confusing than clear
    • Requires learning in and outside of class
  – This may be a lot of work

• The “up” sides
  – If you stick with it, you are essentially guaranteed an A
    • But you really have to stick with it, no slacking
  – Likely to learn more than from a traditional class

Warning: students say my classes are the hardest
(Likely) Course Topics

introduction to cloud services, virtualization, paravirtualization, advanced networking, web services, server-side scripting languages and frameworks, cloud programming paradigms, cloud deployment and machine management, scale-up vs scale-out, cloud storage, cloud service topologies, message serialization and transport, load balancing, content distribution networks, security, authentication, QoS, managing tail latencies, performance monitoring
# Grading (Standard Option)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Warm-up Projects</td>
<td>10 each</td>
</tr>
<tr>
<td>1 Course Project</td>
<td>40</td>
</tr>
<tr>
<td>2 Mid-term Exams</td>
<td>10 each</td>
</tr>
<tr>
<td>In-class demo(s)</td>
<td>10 each</td>
</tr>
<tr>
<td>Demo grade sheets</td>
<td>0.5 each</td>
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</tbody>
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- Letter grades assigned by eye on a curve
  - above the mean is an A
  - two std. dev. below the mean is an F

- Extra credit
  - Send me your class notes in PPTX format

Without curve, 100 points guarantees an A
Course Project

• Biggest chunk of the grade
• One of ours or pick your own
  – Web search with suggestions like “google instant”
  – Online photo management system
  – Collaborative digital books-on-"tape" library
  – Collaborative data mining and pivot charts for research
  – Collaborative recipe cookbook
  – Intelligent personal assistant
  – Online multi-player games

Have a startup idea? It may make a good project.
In-class Demo(s)

• Done individually or in groups of two
• Sign up for a specific topic
  – Example: “Ruby on Rails”
• Study the tool (play with it)
• Send instructor a demo proposal
  – Outline of talk, goal of demo
• Present talk and demo in class
• Receive grade from fellow students
Demo grade sheets

• Google “survey” to assign Demo grades
• Submit the grade during/immediately after class
  – About a 10-minute window
• Mode of the grade assigned to presenter(s)
• Graders that assign Mode grade get full (0.5) credit
  – Grade drops by 0.1 for every point grade away
    • Won’t drop below 0.1

This is an experiment. Will change if it doesn’t work.
Logistics (1/3)

• Project milestones
  – There are *no* official project milestones
  – If *you* need milestones, send me a milestone schedule
    • I will deduct points for each milestone you miss
Logistics (2/3)

• Working in groups
  – Warm-up projects: Max 2 people
  – Course Projects: No limit
  • Permission of instructor is needed for group size greater than two

• Attendance
  – Optional (but highly advised)
  – No phone use in class
  • Don’t test me - I will deduct grade points
Logistics (3/3)

• Blackboard
  – Only used for posting grades

• Course Mailing List
  – Subscription is required
    https://piazza.com/stonybrook/fall2015/cse391/home

• Late Policy
  – All deadlines are before the start of lecture on due date
  – 1-point deducted for each late day (in 24-hour increments)
    • Multiplied by number of group members
Academic Integrity Policy

• Summary: don’t cheat
• Details: don’t take code from anyone for any reason
  – Unmodified third-party open-source libraries permitted

I will enforce this policy very strictly
Questions?