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)

	Points
2 Warm-up Projects	10 each
1 Course Project	40
2 Mid-term Exams	10 each
In-class demo(s)	10 each
Demo grade sheets	0.5 each

- 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?