



CSCI 275

Software Engineering

Lecture 1: Introduction to Software Engineering



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Overview

- Focus: Course Introduction
- Architecture: Computer Systems
- Core Ideas:
 1. What is Software
 2. Course Objective
 3. Weekly Meetings (Fridays)

What is Software?

- Many software development projects fail to produce a final product, or produce a product that is not viable.
- Software development:
 - Need to identify the sources of the problems; and
 - implement procedures and design approaches that avoid the pitfalls.

What is Software?

- Who is your customer?
 - End-User: professional vs consumer
 - Mobile, Desktop, Web
- Packages:
 - Toolkits, Libraries, OS, Gaming Engines, etc.
- Service
 - Your users are service providers, their users are the end users

End-User Products

- 1970s-1990s
 - Customers buys a physical medium with installer
- 2000s
 - Digital distribution
- 2010s-2020s
 - Web
- What's the big difference here?

Course Objective

- You are not my students in CSCI275. We are a new startup company wanting to launch a restaurant review website.
- Today's objectives:
 - Form groups: 4-5 groups max, everyone must belong to a group
 - Choose a competitor to study, prepare for presentation
- This Friday
 - We will do case studies. Each group will focus on one competitor

Assignment 1

- Group Formation
 - Each group will create their own GitHub repository for this course
 - Each group's repo will contain one readme file written in markdown, first containing the group members' name
 - Each group's repo will contain one folder, which contains PDFs for handins
 - Each group will submit their group's repo link on Moodle to me

Assignment 1

- Case Studies
 - Each group will choose an existing competitor to study
 - End-User experiences
 - What are the features?
 - What are the pros and cons of the UIUX design?
 - Performances, Mobile/Desktop apps, etc.
 - Vendor experiences
 - All groups will collectively survey existing backend frameworks and database solutions

Final Objective

- A restaurant review website: Front-End
 - **User** front-end design and integration
 - Sign up; Profile; Comment and review history; etc.
 - **Vendor** front-end design and integration
 - Sign up; Profile; Comment and review history; etc.
 - Actual design of the **restaurant review front-end**
 - What and how are the information displayed?
- A restaurant review website: Back-End
 - **WebServer**
 - backend framework
 - **Database**
 - API between front- and back-end