

Modern Web & App Programming

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Goals

- What it is like to develop *real* applications
- Coding
 - Paradigms: OOP vs. functional programming
 - Teaming and version control
 - Tools and libraries
- Systems & architecture
- Entrepreneurship (marketing & UX)
- Data management & derived intelligence

How?

- Track 1: technologies (video lectures)
 - Web frontend
 - Backend
 - Mobile apps
- Track 2: entrepreneurship (4 in-class lectures)
 - Business plans, product design, growth, revenue
- Track 3: pitches & panels (at 3 checkpoints)
 - *by you*

Technologies

- Part 1: web frontend
 - Old school: HTML, CSS, *JavaScript*, etc.
 - Modern approaches: React, Redux, ES6, etc.
- Part 2: backend
 - Databases
 - Web/app security
- Part 3: mobile apps
 - React Native
- *2~4 people a team*, each focus on one topic

Checkpoints

- 25%
 - Business plan
 - ***You fail, you drop***
- 50%
 - Problem & value validation
- 100%
 - Minimal viable product (MVP) & demo
- ***Win \$100,000 and tickets to DataLab***

FAQ (1/3)

- Is this a programming language course?
 - No. This course teach you how to make *real* software
- Is this a software engineering course?
 - No. We don't focus on SE theories. You will learn some “best practices”
- Is this a entrepreneur course?
 - *Yes*. But we only focus on the product for the very early phases

FAQ (2/3)

- Do I need to write programs in this course?
 - A lot
 - *Under time pressure*
- Are we going to interact with the open source software?
 - Yes.
- Why Javascript?
 - OOP
 - Functional programming
 - Has potential to unify web/app development

FAQ (3/3)

- Why do I need to write code with others?
 - You cannot do it all
- Do we need to come to the class?
 - No, as long as you can pass
- Is this a light-loading class or heavy-loading class?
 - *Very heavy*

Evaluation

- Business plan: 30%
- Problem & value validation: 30%
- MVP: 40%

More Info

- www.cs.nthu.edu.tw/~shwu