



# The Fundamental Practice of Software Engineering Innovation

Introduction

2018-9-18



上海交通大学  
SHANGHAI JIAO TONG UNIVERSITY



# Background

- The 2<sup>nd</sup> course of the serial of industry and university joint courses from 2016
  - Communication
  - Engineering & Society
  - Individual & Team
  - **Thinking in Internet Product**
  - **Foundation of Frontend framework of Internet Application**



# Background

- The following courses
  - The 3<sup>rd</sup> course
    - 4<sup>th</sup> semester
    - Engineering & Society, Individual & Team, Environment & Sustainable Development, **Foundation of Backend Architecture of Internet Application**
  - The 4<sup>th</sup> course
    - 5<sup>th</sup> semester
    - Environment & Sustainable Development, **Foundation of Development & Operation of Internet Application**



# Introduction of the 2<sup>nd</sup> Course



## ▪ Objectives

- Presentation
- Individual & Team working
- Thinking in Internet Product
- An App to Present Your Idea

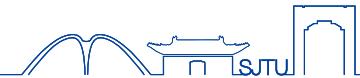
# Introduction of 2<sup>nd</sup> Course



- Schedule
  - 15 lectures
    - 1~2 from Industry
      - How to carry out a product
      - Front-end Technology
    - 13~14 from University
      - Introduction(1)
      - How to build a team working Environment(1)
      - Front-end Technology(4)
      - Thinking in Internet Product(4)
      - Review(3)



# Introduction of 1<sup>st</sup> Course



- How to get credits
  - Attendance, 10%
  - 3 homework, 10% \* 3
  - 1 Projects, 60%
    - 2<sup>nd</sup> Project
      - Team working
      - Presentation of an idea with demo
- Submission
  - [sjtuseproj@163.com](mailto:sjtuseproj@163.com)



# Front-end

- Definition
  - An interface between the user and the backend
  - Backend?
    - Data processing
    - Business logic
  - Motivation of front-end and backend
    - Dealing with higher complexity & more frequent changes
    - Decoupling & Cohesion

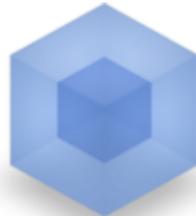


# History of Front-end

- Architecture
  - Monolithic
  - Multi-layer
  - Microservice
- Platform
  - Desktop
  - Web
  - Mobile
  - Cross platform
- Tech
  - Native
  - Web
  - Hybrid



从这里开始



webpack  
MODULE BUNDLER





# Homework I

- Requirements
  - Individual
  - React or Vue
    - Learn it
    - Find the Pros & Cons compared with the technology stack you've had before
    - Prepare your own GitHub repo
    - Prepare a Markdown file to present your viewpoint
- Deadline
  - Before Oct. 1, 2018
- Submit
  - sjtuseproj@163.com