



School of Computer Science



# CS5031 Assignment3

## Group 7

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# Estate Agency System

*Multi-user online house sale management system*





# Data structure

## ➤ User

- ser\_id (p\_key)
- user\_name
- user\_phone
- user\_email
- user\_address
- user\_position(admin, manager, customer)

## ➤ Permission

- permission\_id
- permission\_url

## ➤ Building

- building\_id (p\_key)
- building\_name
- building\_address

## ➤ Flat

- flat\_id (p\_key)
- building\_id (p\_key, f\_key)
- flat\_name
- user\_id (f\_key)
- flat\_area
- flat\_sold\_out\_date
- flat\_price

## ➤ User\_Permission

- user\_id
- peimission\_id





# Technologies

- **Front-end**

- GUI Client
  - › React + UI framework
  - › Axios (an Ajax framework supported in React)
- Terminal Client

- **Back-end**

- Spring Boot
- Maven
- Swagger + Postman
- Spring Security (Authentication and Authorization)
- MySQL (structured database, storing data) + MybatisPlus
- Redis(key-value database, storing token)





# Developing

- **Design Pattern**

- MVC: Model + View(GUI + Terminal) + Controller

- **Model**

- Service
- Model
  - › Entity
  - › Mapper

- **System Architecture**

- 1. GUI -> Controller -> Service(Logic) -> Mapper -> Entity
- 2. Terminal -> Service(logic) -> Mapper -> Entity (First developing way)
- 2. Terminal -> Controller -> Service(logic) -> Mapper -> Entity (Second developing way)





# Developing

- **Task Assignment**

- **Xinya Gong**: GUI + API(Front-end)
- **Jiaxin Wang**: Terminal -> Service + Service test
- **Honglin Zhang**: Controller -> Service(logic) -> Mapper -> Entity + Service test
- **Together**: The designing of authentication and authorization





# Some React UI Framework

## Best React Component UI Framework In 2023

### Best React UI Framework

- **Material Kit React** – GitHub Star: 5.8K | Fork: 794 | MIT License | Latest release: 3.0.3
- **Storybook** –GitHub Star: 75.1k | Fork: 7.9k | MIT License | Latest release: 6.5.13
- **Chakra UI** –GitHub Star: 29.7k | Fork: 2.7k | MIT License | Latest release: 2.2.1
- **Ant Design for React** –GitHub Star: 82.7k | Fork: 36.7k | MIT License | Latest release: 4.24.2
- **Material UI** –GitHub Star: 82.6k | Fork: 28.5k | MIT License | Latest release: 5.10.14
- **Semantic UI React** – GitHub Star: 50.3k | Fork: 5.1k | MIT License | Latest release: 2.5.0
- **React Admin** –GitHub Star: 21k | Fork: 4.6k | MIT License | Latest release: 4.5.1
- **React Bootstrap** –GitHub Star: 21.3k | Fork: 3.4k | MIT License | Latest release: 2.6.0
- **React Toolbox** –GitHub Star: 8.7k | Fork: 1k | MIT License | Latest release: 2.0.0-beta1.0
- **React Virtualized** –GitHub Star: 24.4k | Fork: 3.1k | MIT License | Latest release: 9.22.3
- **Blueprint UI** –GitHub Star: 19.4k | Fork: 2.1k | MIT License | Latest release: 0.14.5
- **Grommet**– GitHub Star: 8.1k | Fork: 991 | Apache-2.0 License | Latest release: 2.27.0
- **EvergreenUI** –GitHub Star: 11.9k | Fork: 822 | MIT License | Latest release: 6.12.0

Picking the correct **React design component** for an application can be tricky. So here's the list of **best UI frameworks for react** that can help React Developers build their ReactJS app quickly and effectively.





# UI prototype

Sign in

User

Password

Sign up

Sign in

Sign up

Name

Phone

Email

Adress

Back

Confirm

Flat List

Add

Delete

Edit

ID	Name	Area	Price	Building	State	Owner
001	106	xx	xx	Ad1	X	X
002	105	xx	xx	Ad2	✓	Jiakim
003	106	xx	xx	Ad1	X	X
:	:	:	:	:	:	:
00n	107	xx	xx	Ad1	X	X

Guest Interface

Flat List

ID	Name	Area	Price	Building
:	:	:	:	:
:	:	:	:	:
:	:	:	:	:

Flat 0003

Name

Price

State

Sold

UnSold

Owner







# What's happened so far

- Meeting 1
  - Brainstorm
  - Technologies
- Meeting 2
  - Finalize topic
  - Database structure
  - Task assignment





# Time estimate for each task

- GUI: 7 days
- Controller: 2 days
- Terminal: 2 days
- Service + Mapper: 4 days
- Report: 3 days

