## COMP 504: Graduate Object-Oriented Programming and Design

Lecture 22: Chat App Use Cases

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https://www.clear.rice.edu/comp504



## **Announcements & Reminders**

- Quiz #3 (Command, Visitor, Strategy) today Wed. Oct. 14th at 11:59pm
- Hw #3 UI Peer Review due Thu. Oct. 15th at 11:59pm
- Hw #4 due Wed. Oct. 21st at 11:59pm



#### Team A

- Yixuan Bian (team lead)
- · Jianan Ding (tech lead)
- Leyi Du (doc lead)
- George Chan (dev)
- Siting Chen (dev)
- Xi Cheng (dev)

#### Team B

- Al Hirani (team lead)
- ZanHua Huang (tech lead)
- Hongyu Ji (doc lead)
- Lars Chiang (dev)
- Zihui Deng (dev)
- Yolanda Du (dev)

#### Team C

- Baekjun Kim (team lead)
- · Yuyang Luo (tech lead)
- Amir Safaei (doc lead)
- Jian Fang (dev)
- Shunchao Gao (dev)
- Songyue Han (dev)



#### Team D

- Alex Liapis (team lead)
- · Yang Mi (tech lead)
- Dingyu Wang (doc lead)
- Minyu Jiang (dev)
- Dingjia Li (dev)
- Jiamin Liu (dev)

#### Team E

- Yizhi Hu (team lead)
- Christine Tharian (tech lead)
- Tianhao Wang (doc lead)
- Xuan Liu (dev)
- Yihai Long (dev)
- Mingke Ma (dev)

#### Team F

- Yuting Chen (team lead)
- Bangju Wang (tech lead)
- Donghui Zhang (doc lead)
- Tao Mao (dev)
- Xinqi Ou (dev)
- · Liuhao Ouyang (dev)



#### • Team G

- Max Ding (team lead)
- Ruitao Xu (tech lead)
- Xurui Zhang (doc lead)
- Bibin Sebastian (dev)
- · Leyi Qiang (dev)
- Guoming Sun (dev)

#### Team H

- Vivek Goddu (team lead)
- Bowen Yang (tech lead)
- Junjie Zhao (doc lead)
- Kuangyuan Sun (dev)
- Haoyu Wang (dev)
- Yixin Wu (dev)

#### Team I

- Xiao Xia (team lead)
- Zhijian Yao (tech lead)
- Weiwei Zhou (doc lead)
- Xinru Xiao (dev)
- Xuyang Xiao (dev)
- Wenlong Yan (dev)



### Team J

- Siyu Xie (team lead)
- He Wang (tech lead)
- Huijia Zhu (doc lead)
- Pengyu Zhang (dev)
- Su Zhang (dev)
- Suyue Zhang (dev)

### Team K

- Chaoran Yang (team lead)
- Zequn Jiang (tech lead)
- Fangzheng Zhou (doc lead)
- Yi Zhou (dev)
- Ningning Zhu (dev)



## **Use Cases**

A use case is an example of how a user might interact with an application

Design and develop an application by collecting as many use cases as possible

 Use case set informs developer what interfaces are needed to build system



## **UML Diagrams**

Reflect possible use cases in the system

- Use cases drive interface
  - Interface does not constrain use cases
  - Construct use cases before designing system
- Explain how your system works
  - Customer uses UMLs to understand interfaces within system



## **Chat Rooms**

- Chat rooms allow people with shared interests to communicate
  - send and receive messages
  - restrictions on who can join the chat room (imposed by owner)
  - users can create chatrooms (owner)
- Each user is simultaneously running their own instance of a chat room

User can chat with multiple people in a room (joined room)

User can chat with multiple people in different rooms (joined multiple rooms)



# **Use Cases: Creating a Chat Room**



# **Use Cases: Joining a Chat Room**



## **Use Cases: Sending a Chat Room Message**



## **Use Cases: Leaving a Chat Room**

