Chat App API Design

Team - Sleepy Day

Overview

- Team & Project Quick Intro.
- User Case Analysis
- Message Flow based on WebSocket
- API design & Highlights

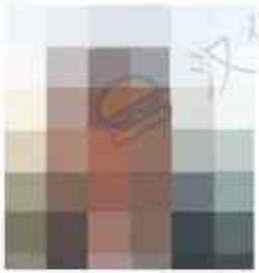
Team Introduction

[redacted]

Team Leader

[redacted]

Tech Leader



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Doc Leader

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Backend Dev

[redacted]

Frontend Dev

[redacted]

Frontend Dev


Chat App
Login
Message
Rooms
Actions & options
Dark
Light
Invite friend
Add friend
Change Room
Edit name
Demo
https://chatapp-team-sleepyday.herokuapp.com/
write some thing...

Requirement Specification

Basic Requirement

- Clients connect to the server
- Create an account
- Create a chat room
- Join a chat room
- Send a chat room message
- ……

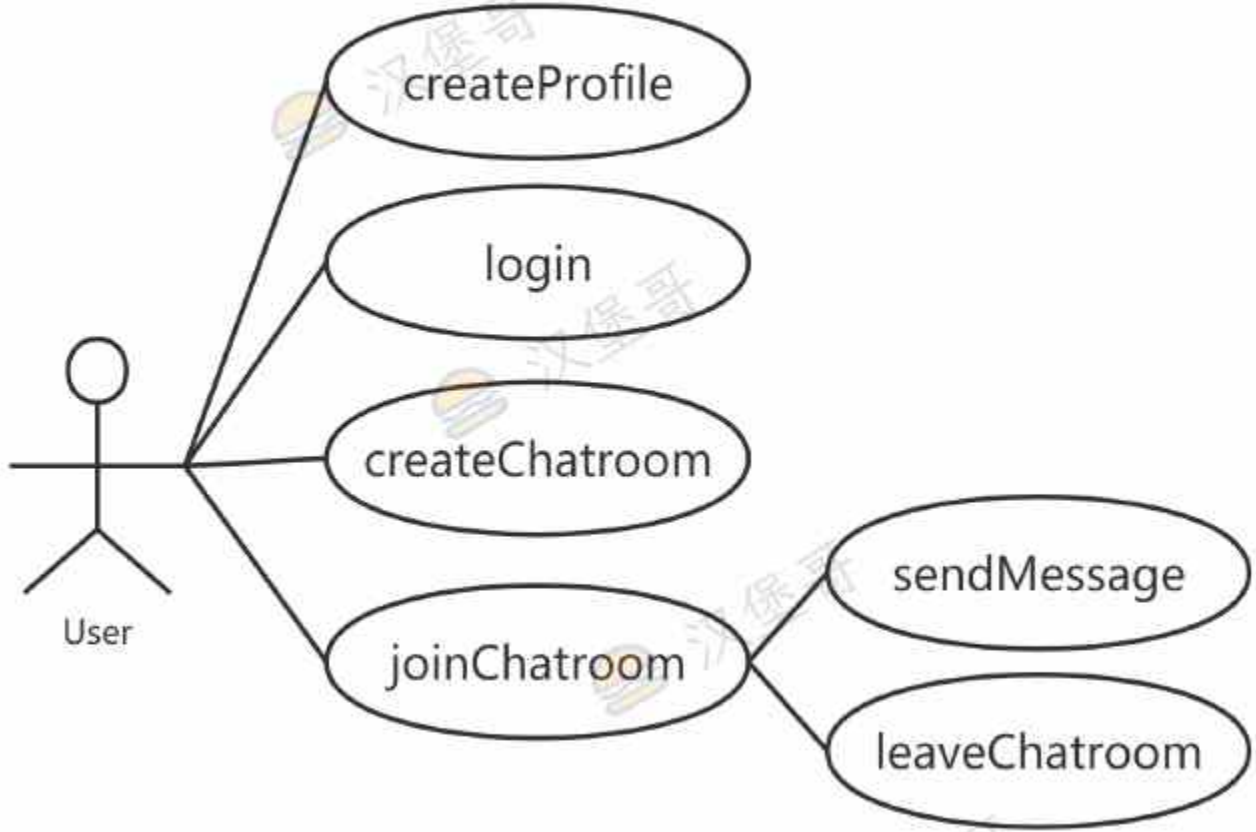
Our Chat app

- browsers show the area for user input
- pack the information and send it to the server via WebSocket
- Server initializes the room, setting all the information
- Use can choose chat room to join in
- Owner can send message to all people, others can send message between two users
- ……

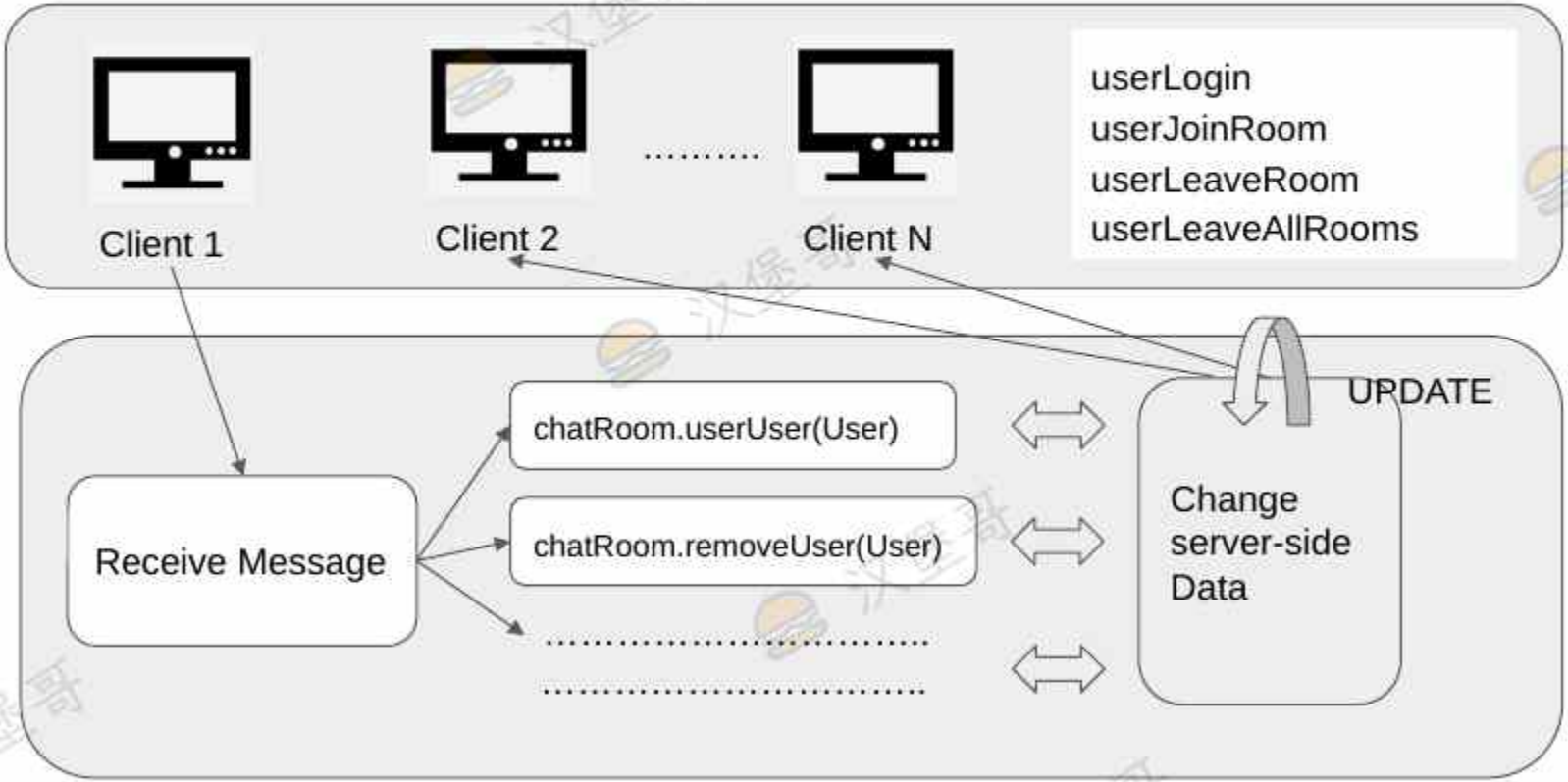
Use Cases

- Client connect to the server
- Creating account profile / Login
- Creating a chat room
- Joining a chat room
- Sending a chat room message
- A user leaves a chat room

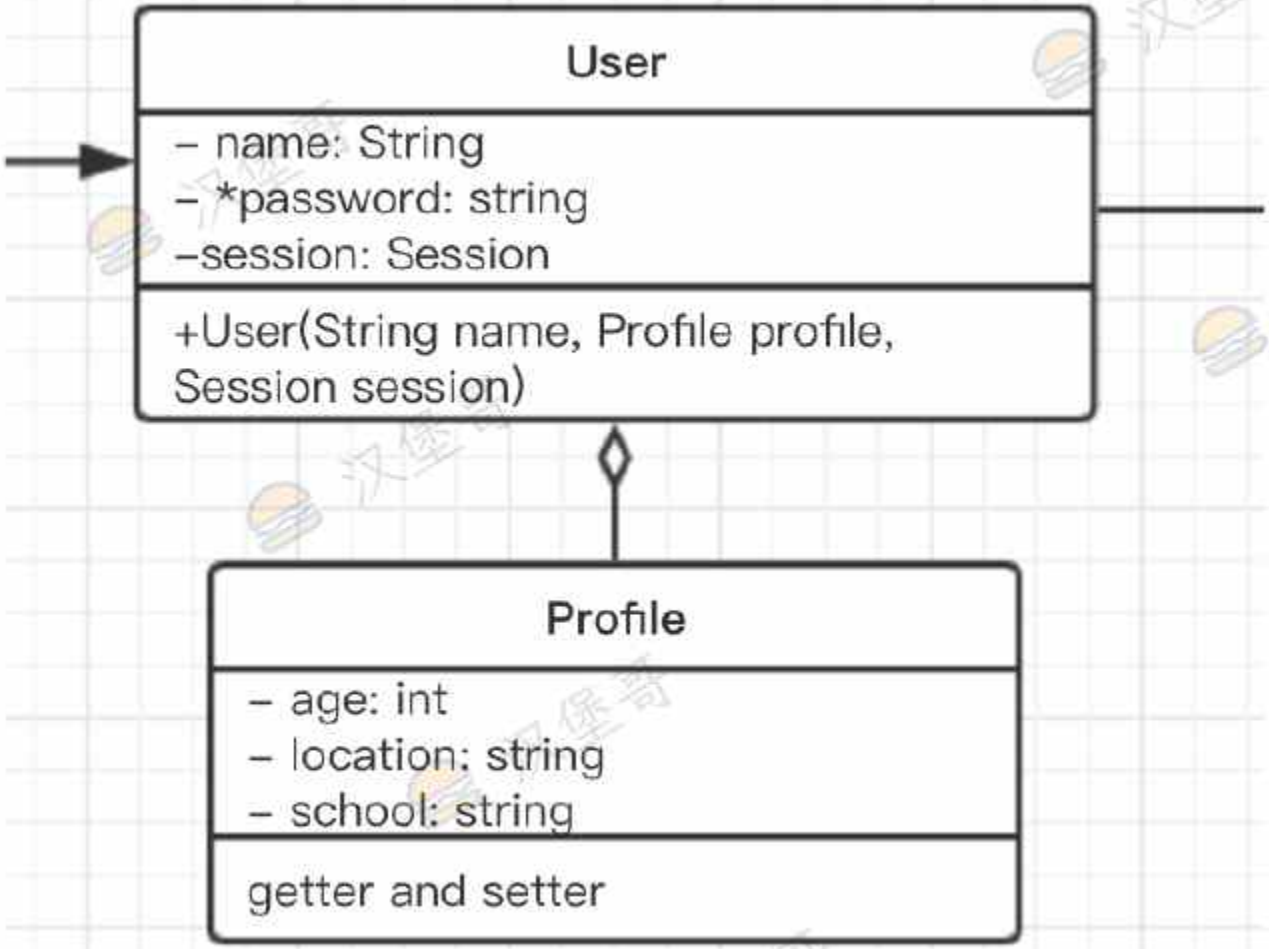
Use Cases


createProfile
login
createChatroom
sendMessage
joinChatroom
leaveChatroom
User

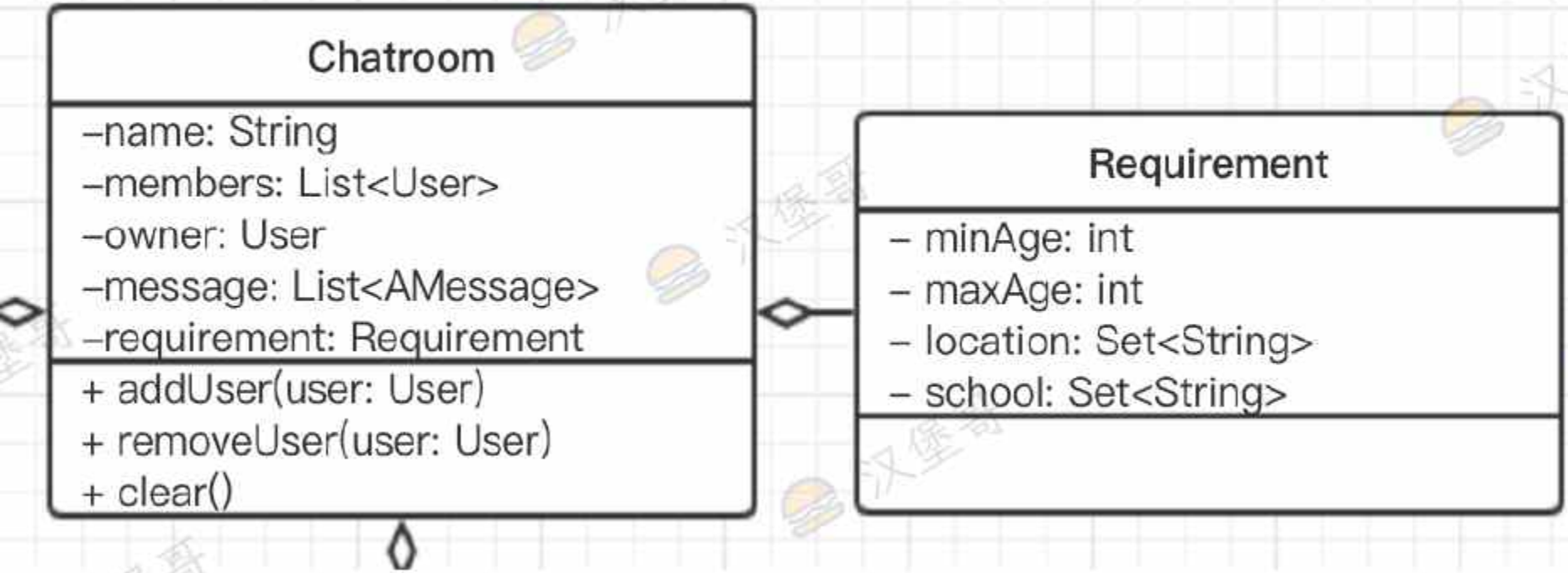
Message Flow



API design

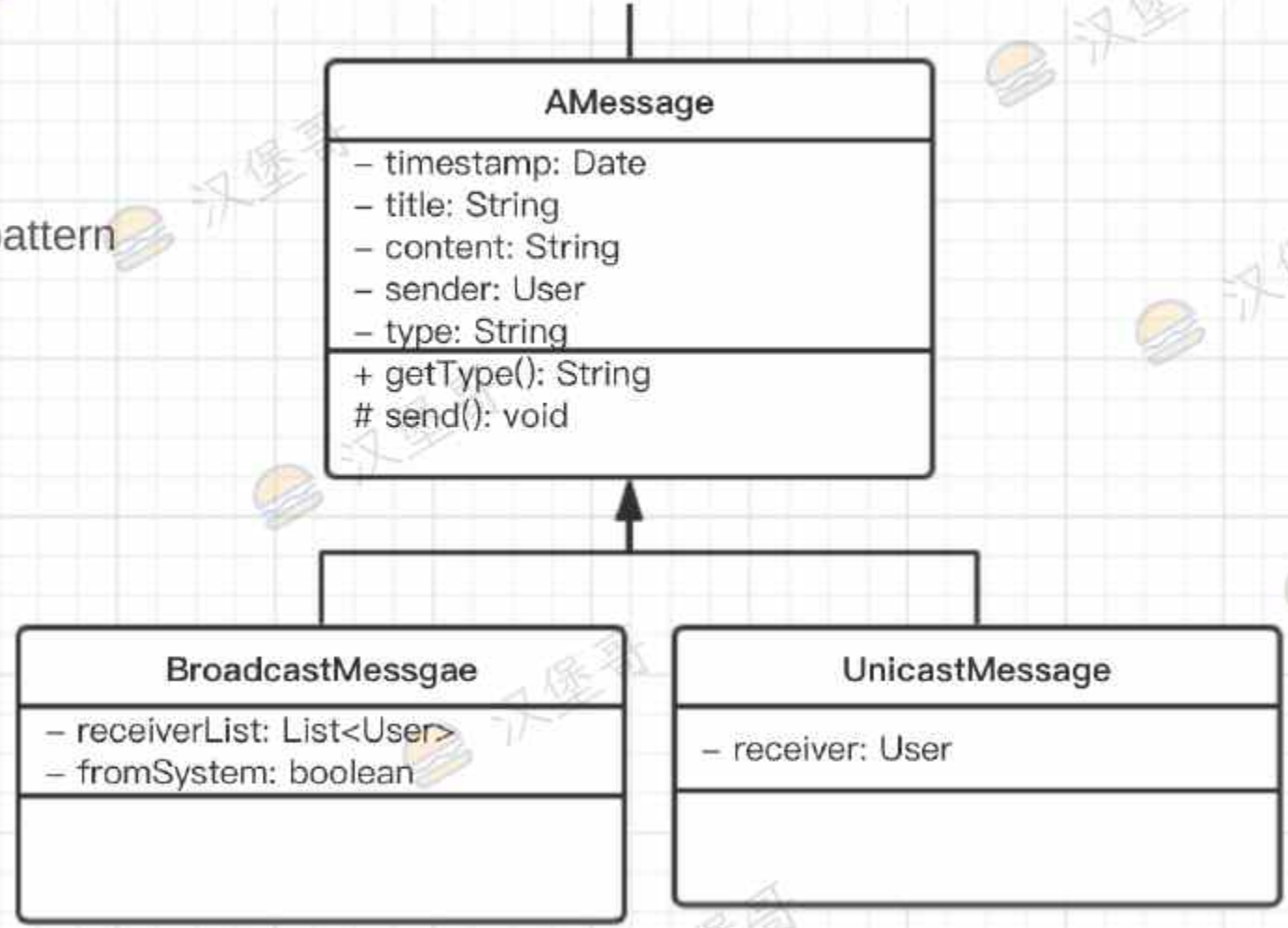

User
– name: String
– *password: string
–session: Session
+User(String name, Profile profile,
Session session)
Profile
– age: int
– location: string
– school: string
getter and setter

API design


Chatroom
-name: String
-members: List<User>
-owner: User
-message: List<AMessage>
-requirement: Requirement
+ addUser(user: User)
+ removeUser(user: User)
+ clear()
Requirement
- minAge: int
- maxAge: int
- location: Set<String>
- school: Set<String>

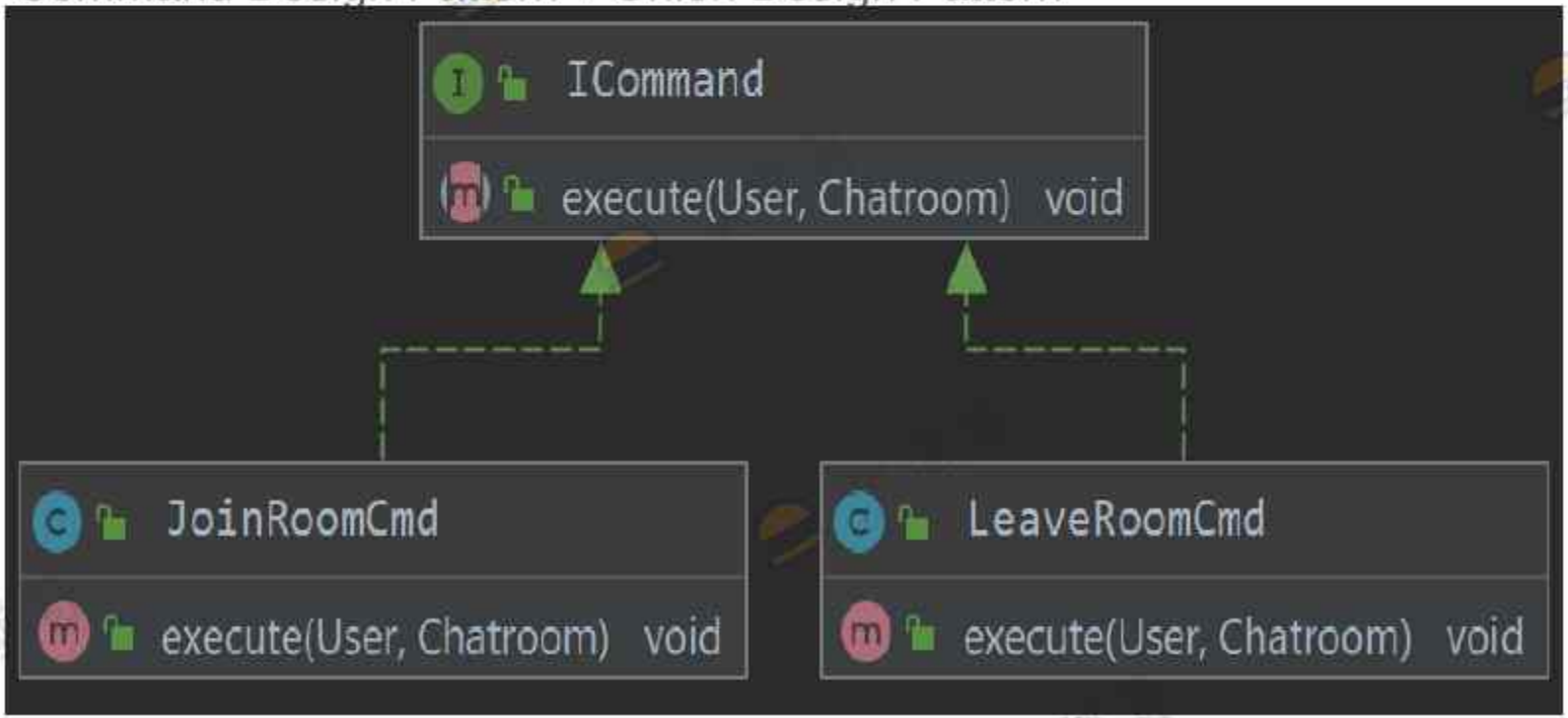
API design

- Union design pattern



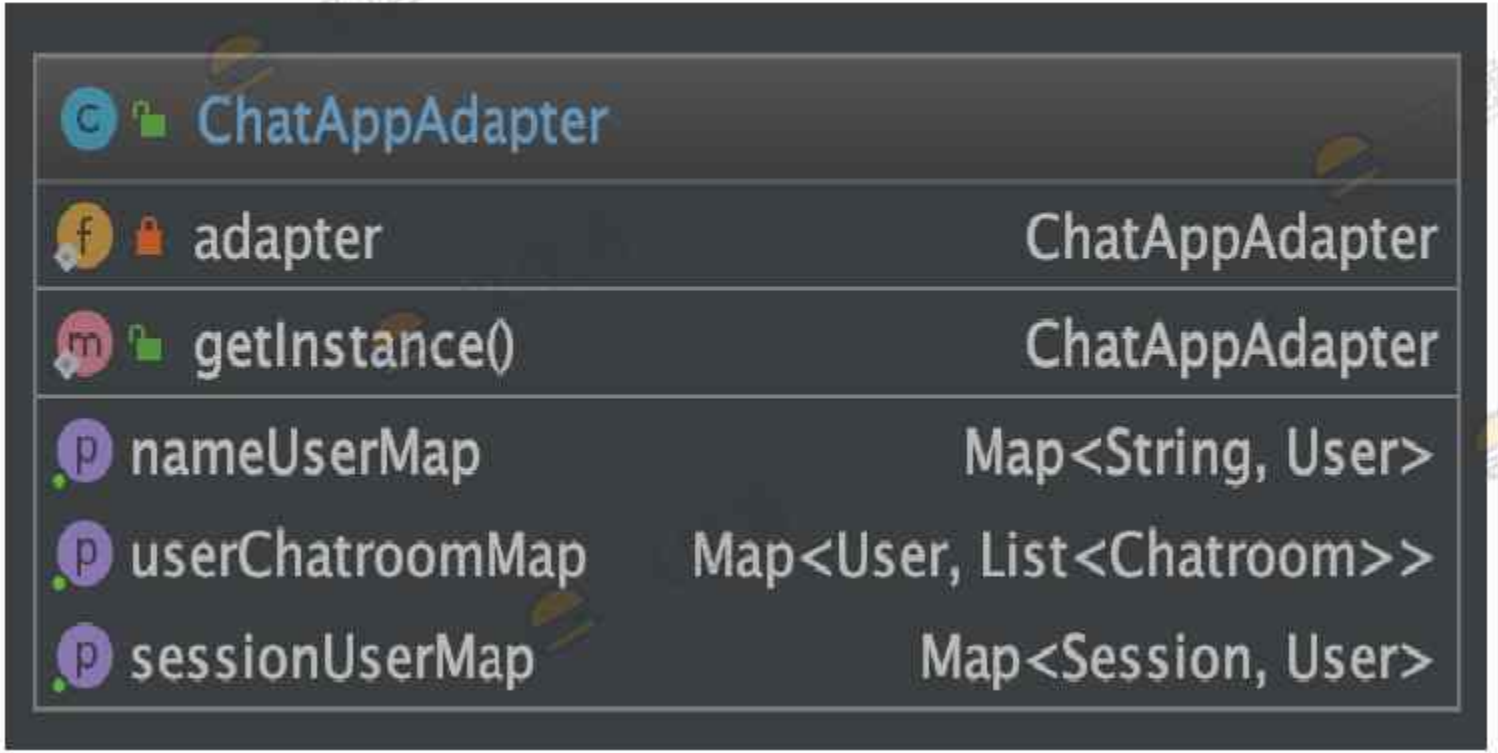
API design

- Command Design Pattern + Union Design Pattern



API design

- Singleton



API design highlights

- Union design pattern
- Singleton
- Command design pattern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Questions?