

Chat Application

Whatsapp





MicroServices

- User Management
- Authentication service
- Contact management
- Notification Service
- Chat Service
- Call Service
- Status Service
- Search Service



User Management - UserDetails

Attributes:

1. Username
2. ProfilePic
3. About
4. Phone Num
5. Status (active/inactive)

Functions:

1. CreateProfile
2. DisplayProfile
3. Change number
4. EditProfile
5. Deleteacc



Authentication Service - Authentication

UserDetails (POJO)

Attributes:

1. Phone number
2. Password
3. Tokens
4. Login status

Functions:

1. loginAndLogout
2. Phone number verification
3. Account recovery



Contact Management - Contacts

UserDetails (POJO)

Attributes:

1. Username
2. PhoneNum
3. ContactStatus(Block/Unblock)
4. StatusPrivacyCheck

Functions:

1. addcontact
2. deletecontact
3. modifyStatusPrivacyCheck



Notification Service - Notifications

Attributes:

1. Sender Id
2. ReceiverId
3. time/date
4. Message
5. Response

Functions:

1. Send notification



Chat Service - Chat

Attributes:

1. SenderId
2. ReceiverId
3. messageContent
4. messageStatus
5. Timestamp
6. reactions

Functions:

1. sendMessage
2. deleteMessage
3. getMessage
4. forwardMessage



Chat Service - Group & GroupParticipants

Attributes:

1. GroupName
2. GroupId
3. GroupDescription
4. createdOn
5. createdBy

Functions

1. createGroup
2. addParticipant
3. removeParticipant
4. editGroup

Attributes:

1. GroupId
2. ParticipantsId
3. isAdmin

Functions

1. addParticipant
2. removeParticipant
3. makeAdmin
4. removeFromAdmin



Chat Service - GroupChat

Attributes:

1. GroupId
2. senderId
3. MessageContent
4. Timestamp
5. messageStatus

Functions:

1. sendMessage
2. deleteMessage
3. forwardMessage



Call Service - CallDetails

Attributes:

1. CallerId
2. ReceiverId
3. CallDuration
4. Type(Audio/Video)

Functions:

1. MakeAudiocall
2. MakeVideoCall
3. receiverResponse



Call Service - GroupCallDetails

Attributes:

1. GroupId
2. CallDuration
3. Type(Audio/Video)

Functions:

1. makeGroupAudiocall
2. makeGroupVideocall
3. joinGroupCall
4. removeParticipant



Status Service - Status & StatusViewer

1. Contacts(POJO)

Attributes:

1. Statusid
2. postedBy
3. mediaContent
4. Description
5. Time
6. Privacy

1. ViewerId
2. StatusId

Functions:

1. postStatus
2. deleteStatus
3. viewStatus



Kafka Usage & Redis

Chat Service (publisher) - Notification Service (Listener)

Call Service (Publisher) - Notification Service (Listener)

Authentication - Redis