Functional Requirements

- Messaging (basic texts) - instant messaging, old messages, 1-1 messages
- Organization
    - Multiple Channels
    - Users in Channel
- Unread messages, Unread mentions
- Cross Platform Synchroniztion

Non-functional Requirements
- 20M users
- 50k organizations, 50K channels
- Low Latency

Design
1) Persistent Storage (When slack is started)
2) Real Time Messaging

Tables
Organizations

Channels

Users

Channels__users_mapping

Messages
Id, channel_id, sender_user_id, sent_at, body

Read_Receipts
Id, organizarion_id, channel_id, last_mesage_timestamp

Channel_last_activity
Id, organization_id, channel_id, last_message_timestamp

Last_unread_messages_count
Id, organization_id, channel_id, user_id, count

Last_unread_user_mentions_count
Id, organization_id, channel_id, user_id, count

Design