# Object Oriented Analysis and Design Phase 2

**Group Members:** 

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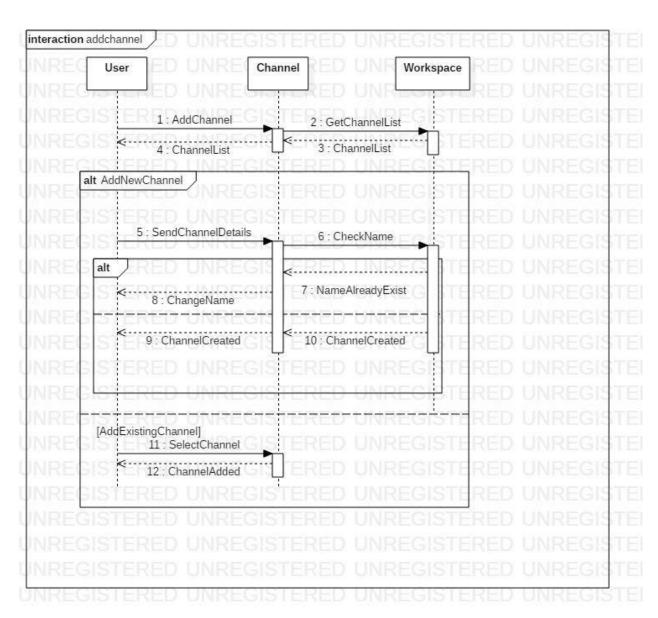
Rameen Ahsan 16-4339

**Usman Noor 16-4379** 

Syed Shaharyar 16-6301

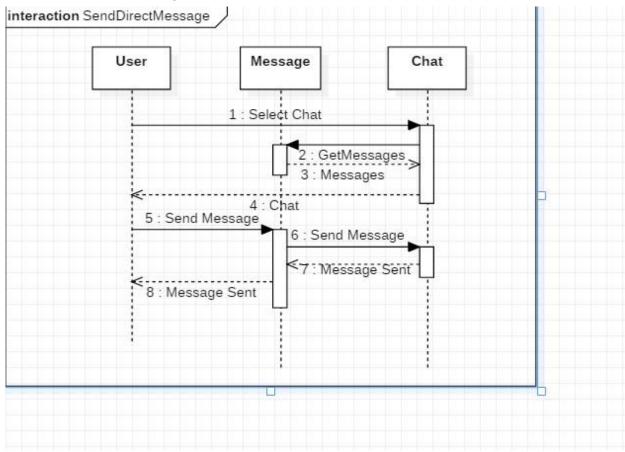
**Sequence Diagrams** 

#### **Use Case: Add Channel**

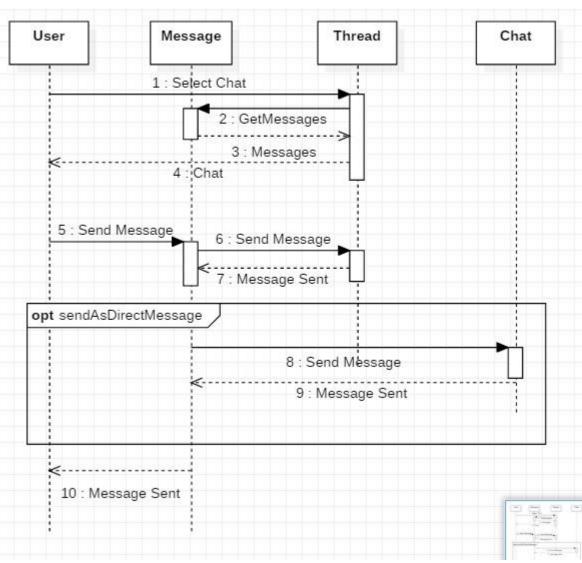


#### Use Case: Send a message

• Send direct message

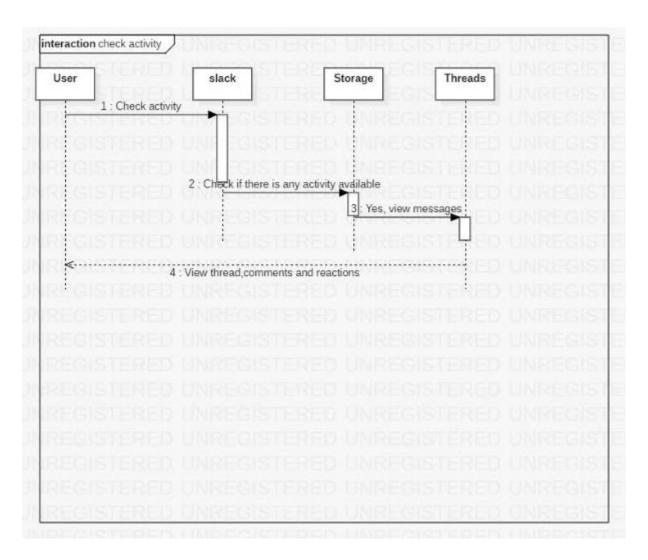


#### • Send message to a thread

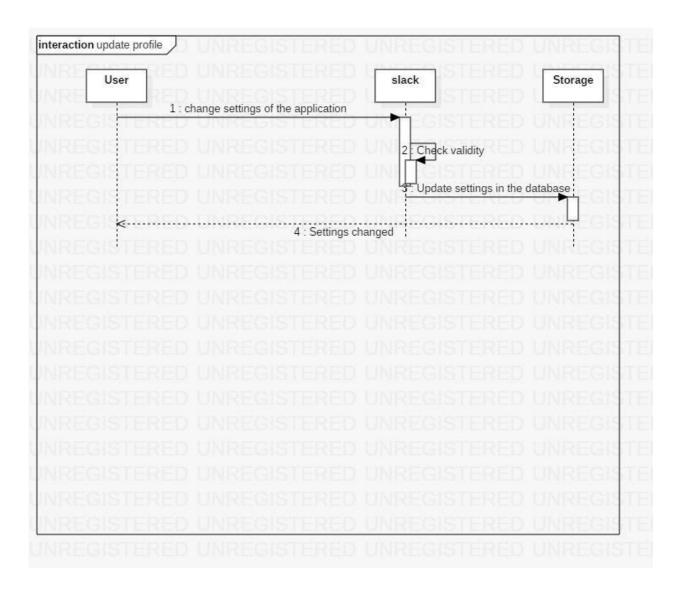


Taimur Aslam

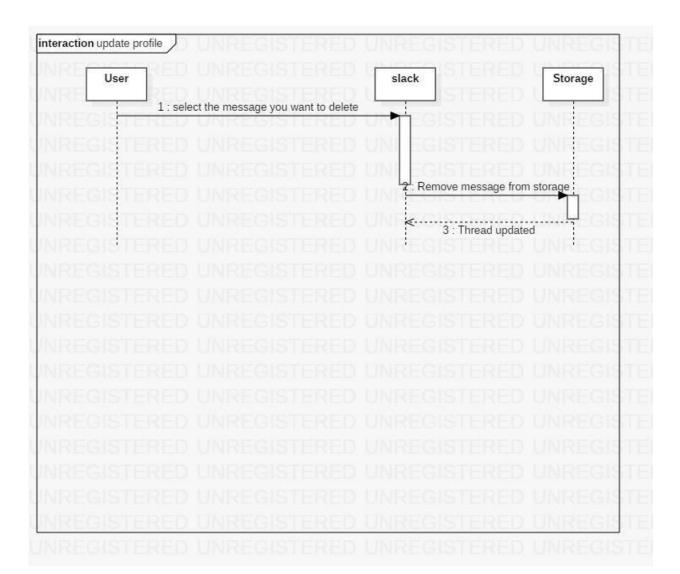
**Use Case: check Activity** 



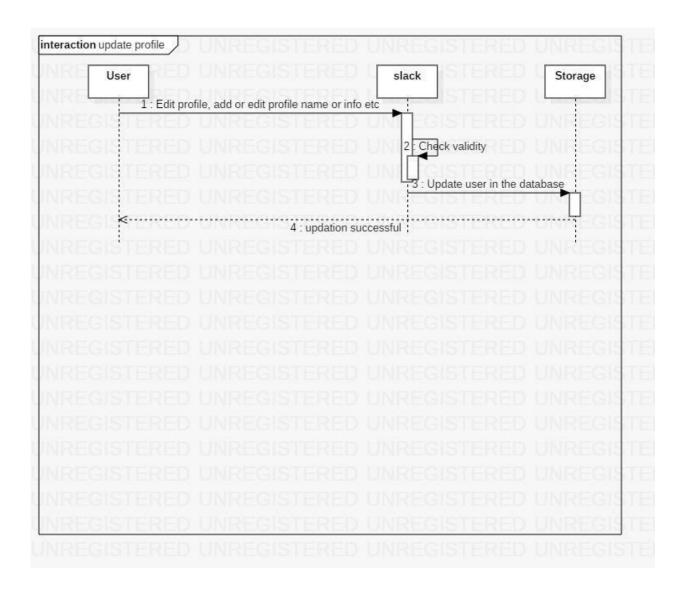
### **Use Case: Update Settings**



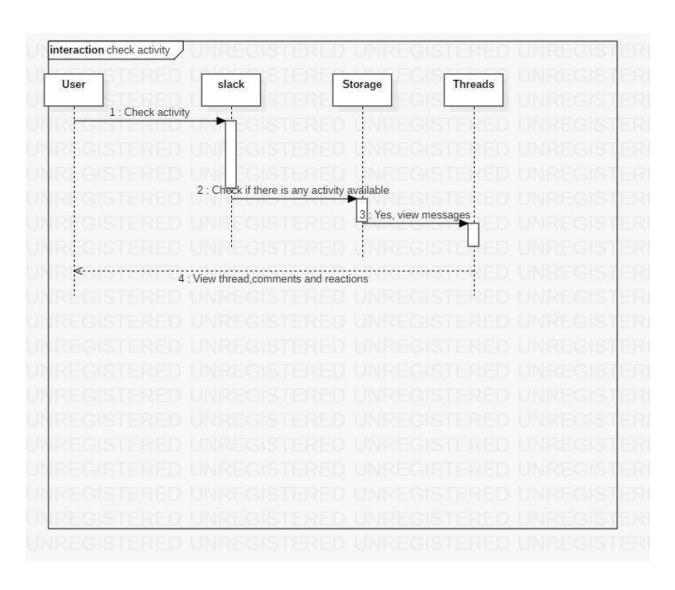
Use Case: Delete message



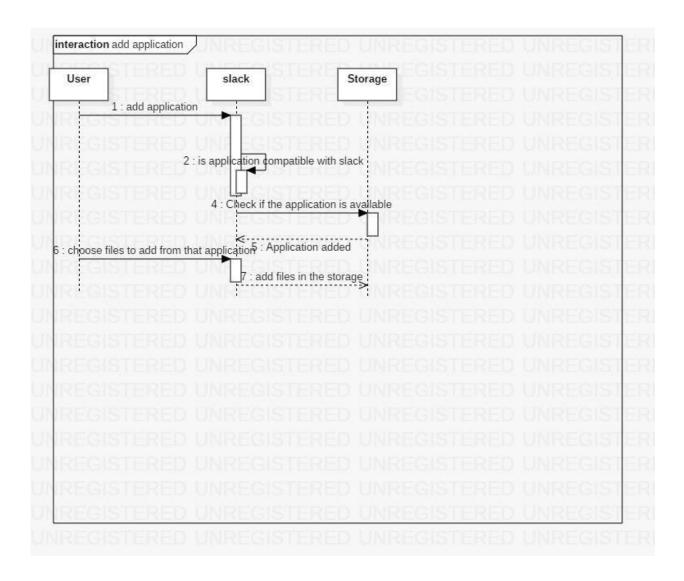
#### **Use Case: Update Profile**



#### **Use Case: Check Activity**

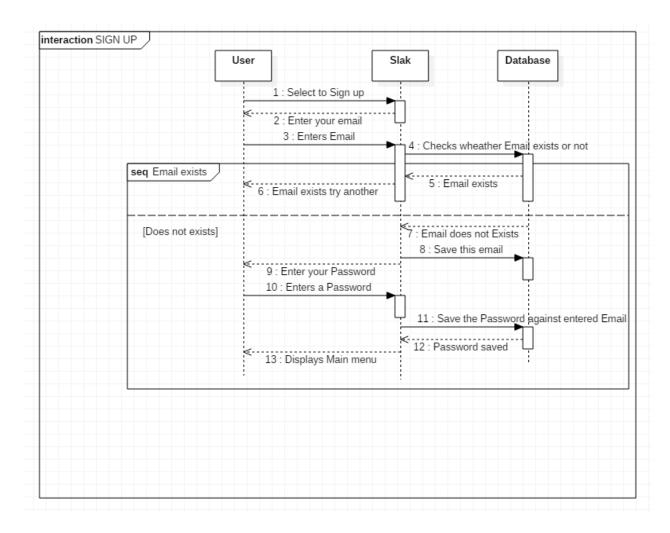


#### **Use Case: Add Application**

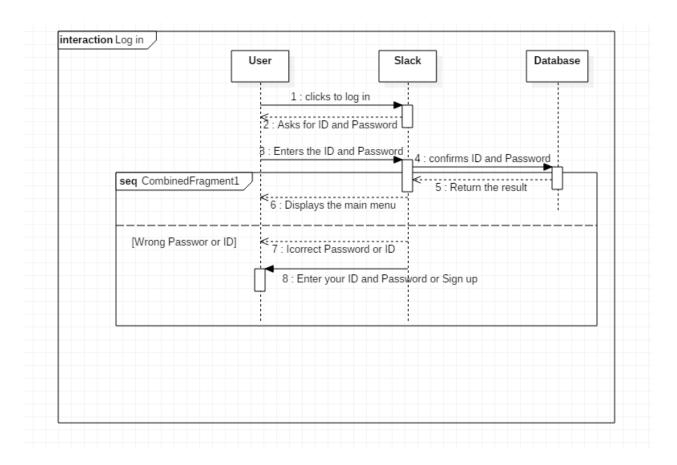


Syed shaharyar

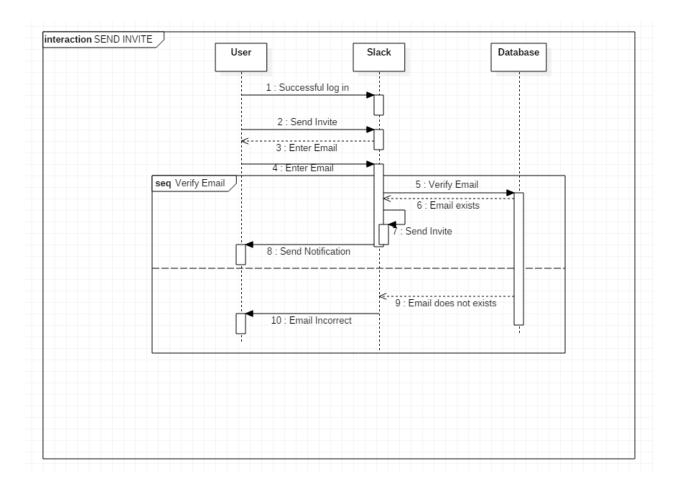
Use Case: Sign up



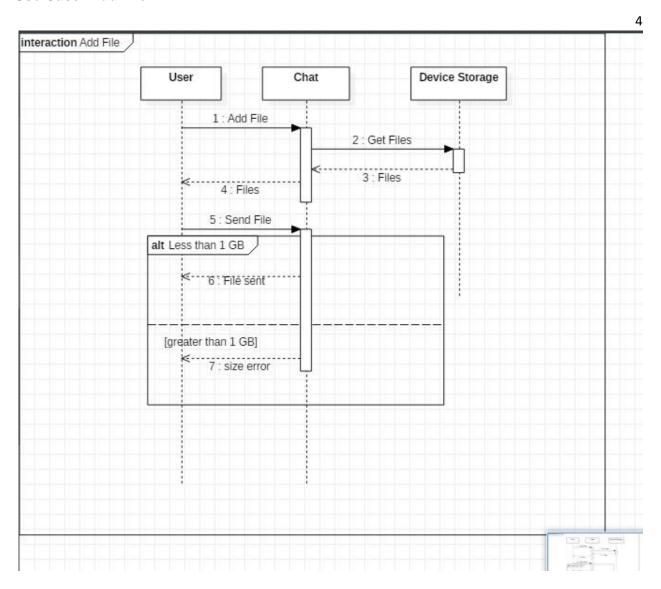
#### **Use Case: Login**



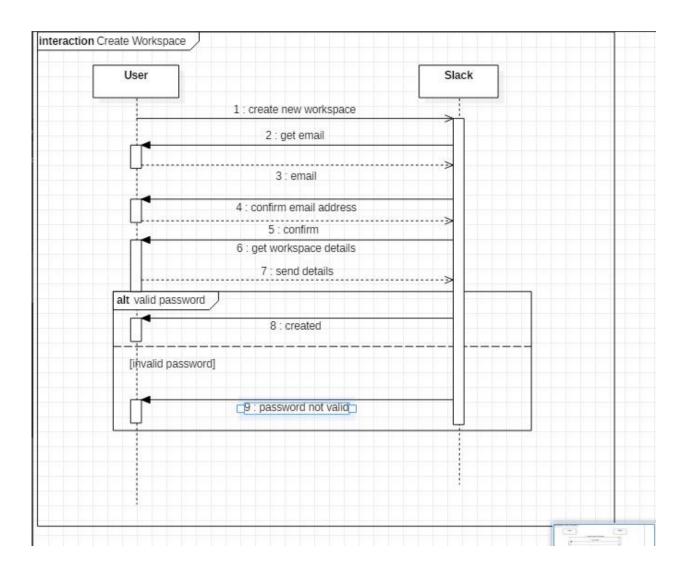
#### **Use Case: Send Invite**

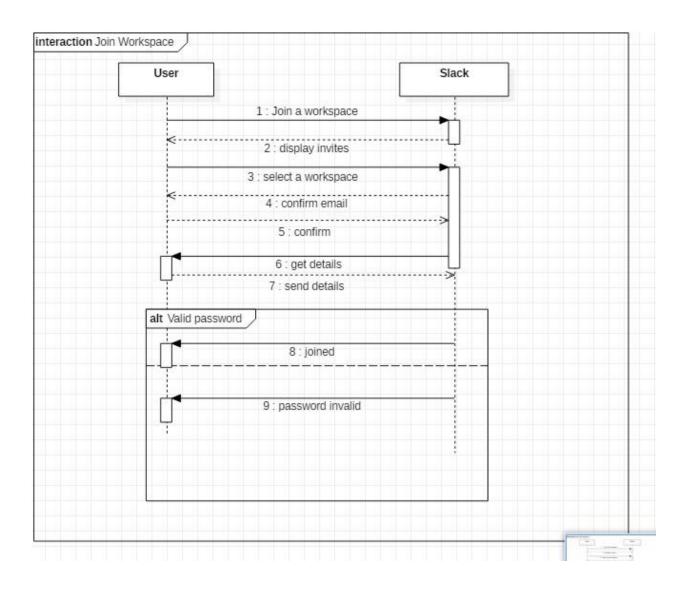


#### **Use Case: Add File**

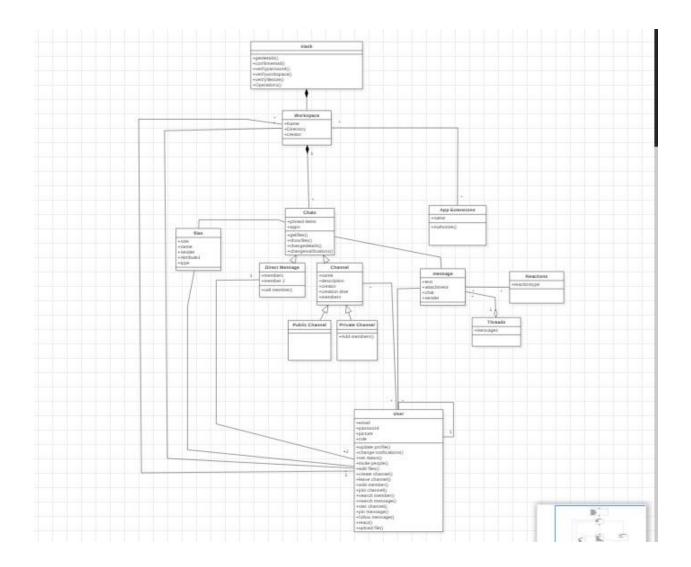


**Use Case: Create Workspace** 





# **Class Diagram**



- 1. Multiplicity between user and message is one to many.
- 2. Multiplicity between user and file is also one to many.
- 3. Multiplicity between chat and message is one to many.
- 4. Multiplicity between chat and file is also one to many.
- 5. Relation between slack and workspace is Composition with multiplicity one to many. (One on Slack and many on Workspace)

## **Class Functionalities**

#### User:

- Can create workspaces and add people in them.
- Can create channels, both private and public inside workspaces.
- · Can send messages in direct one-to-one chats or group chats.
- Apart from messages, a user can share media including photos, videos, voice clips.
- Apart from media, a user can share files from their device to chats via the slack platform.
- Users can react, follow or pin messages.
- Users can add supporting application extensions to enhance the productivity e.g Google Calendars, Dropbox for extra cloud storage and Bots such as Timebot for time management.
- Users interacts with Slack to create, manage and participate in workspaces. Slack gives user the permission to create workspaces.

#### Slack:

- Slack allows the user to create workspaces and manage them including creating channels (chats), adding users to those workspaces and share files among messages.
- Slack confirms the legitimacy of emails, passwords and names of workspaces through the online database.
- Slack also confirms whether file sizes are under 1 GB. Otherwise, a file cannot be uploaded to a chat.

#### Workspace:

- A workspace is created to allow communication and effective/strategic collaboration between colleagues and peers.
- The workspaces have unique sharable addresses and names. For example: ooadproject.slack.com is a unique address to a workspace called ooad project.
- A user can login to a workspace using this sharable address altering entering username and password.

#### Chat:

- A Chat is basically a generic class that can either be a one-to-one chat or a group chat called a channel.
- Every chat is either a group chat or a direct message chat (one-to-one).

- Every group chat is either private or public. If private, users inside the chat can choose whom to add. If public, all users in the workspace can join the chat.
- Chats store messages, user information.
- A user can upload media including photos and videos to a chat. This media is accessible
  to everyone in the chat.
- Users can add files to the chats that are accessible to everyone in the chat.

#### Message:

- Messages are combinations of text messages, emojis, photos/videos/files.
- Messages are kept in chats.
- Users can reply to certain messages. This will start a new thread, or a section under that message that are specific to that message (much like how we reply to comments on Facebook or Instagram).
- Slack has a section of threads that are threads a user has been a part of.
- Messages can be followed i.e. if you follow a message, you will be notified if someone replied to it or if it has been reacted to.
- Users can react to messages with emojis. // Similar to Facebook.
- Users can pin messages and these messages will be saved in a special section called Pinned Messages for the users convenience.

#### Reactions:

- Reactions such as sad, happy etc. are added by users to messages.
- A message may have no or more than one reaction. All will be shown and those who reacted to the message will also be shown.
- A user can also unreact to the message i.e. remove their reaction.

#### Thread:

- As aforementioned, a thread consists of messages that are specific to one particular message. All of the messages in a thread have normal message qualities.
- Threads are kept in each workspace to allow users to organize their chats and messages, considering threads are usually topic-specific.