

HCI Design Activity

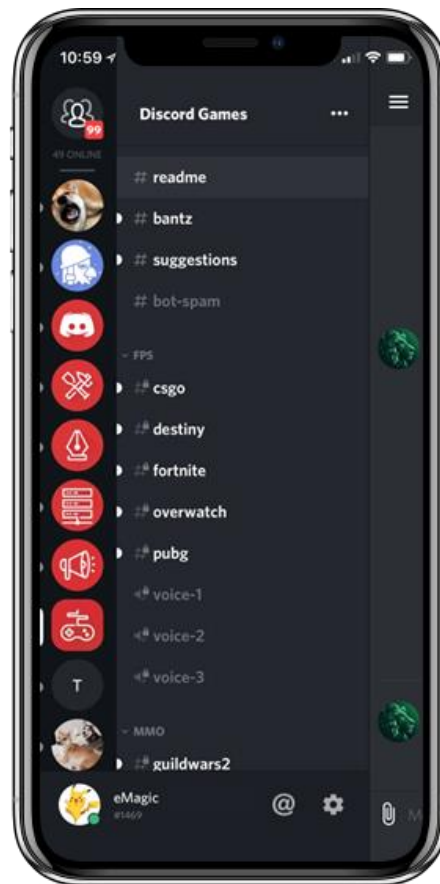
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Chosen App:



Discord



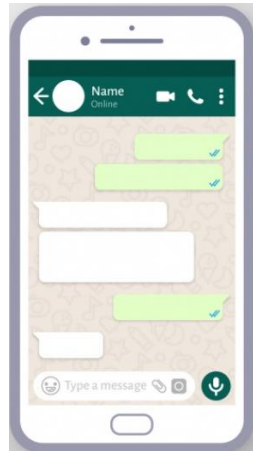
Introduction:

Discord is a mobile application that supports the following features,

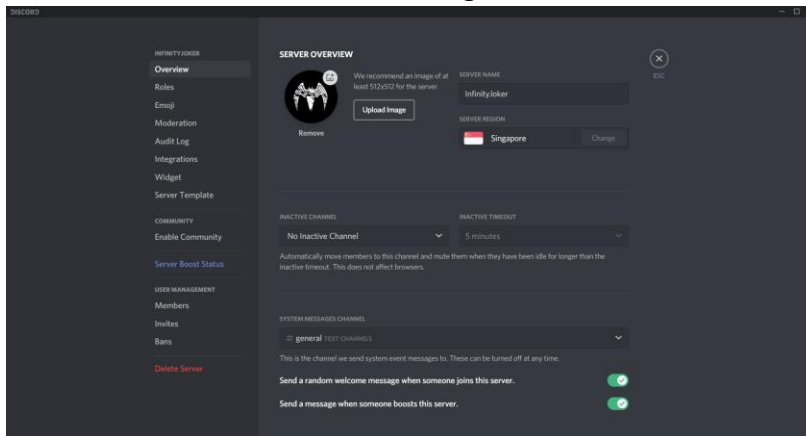
- Instant Messaging
- Free to use!
- Also supports VoIP and Data sharing
- Screensharing

Pros:

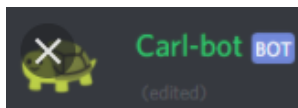
- **Similar UI structure in mobile to other apps**
 - Compliant with user mental models of messaging applications
 - Uses commonly used icons related to real life objects (Skeuomorphism)



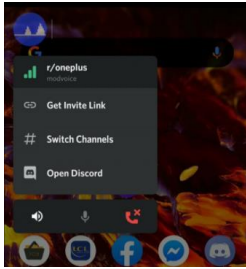
- **Excellent server controls like muting, banning, etc with clear UI**
 - Admin has full control of server so they can take proper actions in certain situations (Someone misbehaving must be banned) (Internal locus of control)
- **Excellent and detailed server management for admins**



- **Bots for automation of tasks, auto moderation, playing songs, etc**
 - Auto moderation is used to address Asimov's Second Law (Time of user, in this case the admin and other users should not be wasted by the system. Automation of these tasks takes the burden off the user)



- **Voice Chat Overlay** when other apps are opened (usually games)
 - o Multithreading compliant – Flexibility usability principle



Cons:

- **Multiple text and voice channels** in a single server lead to confusion as to which channel is main channel of server
 - o Violating **Hick and Hyman's Law** that time for achieving a task by user increases with the number of choices
- **Direct messages are hidden** behind a button
 - o Important feature which requires more navigation than what is necessary
 - o New users might get stuck searching for it, **bad learnability and bad ease of use**
- **Poor navigation** between channels and servers in mobile
 - o 1 swipe + search + 1 tap required – **bad ease of use**
- **Edit and quote options** can be made more easier to do
 - o Long press + 1 Taps to quote – **bad ease of use**
- Inability to **clear all messages** in a server
- Inability to **reverse deletion** of messages and edits
 - o Violates **Reversal of Actions** principle

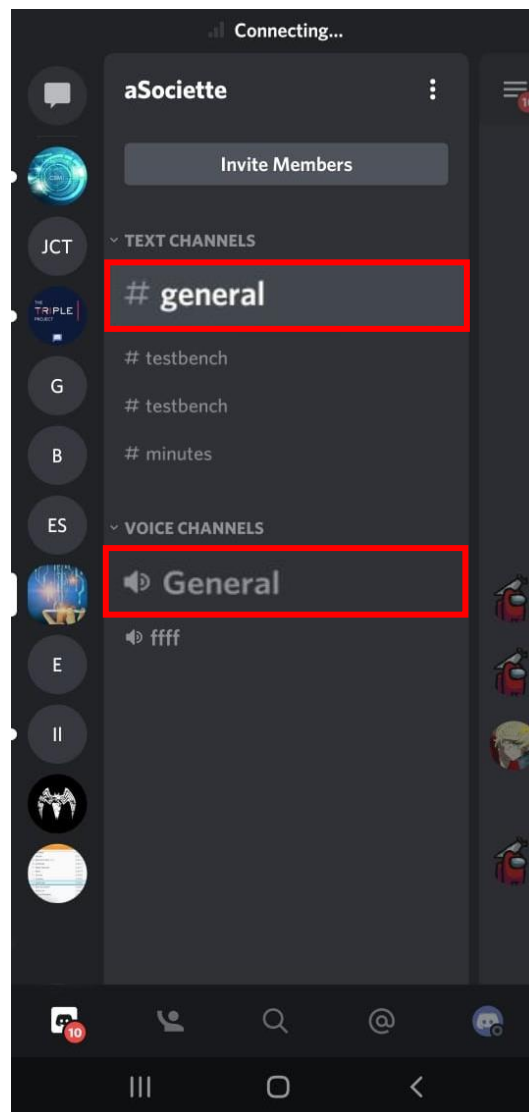
So, I will be designing an app which has all the **pros of discord** while **rectifying the cons** to produce the optimal design compliant with HCI laws.

My Design:

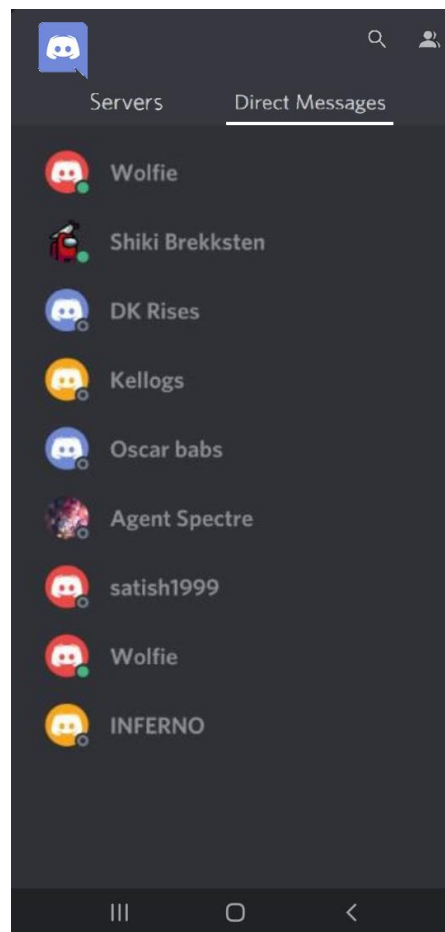
Design done keeping in mind the following,

- UI structure kept similar to other apps (**Mental Model** Compliant)
- Other pros, bot automation, overlay, server controls kept same as discord

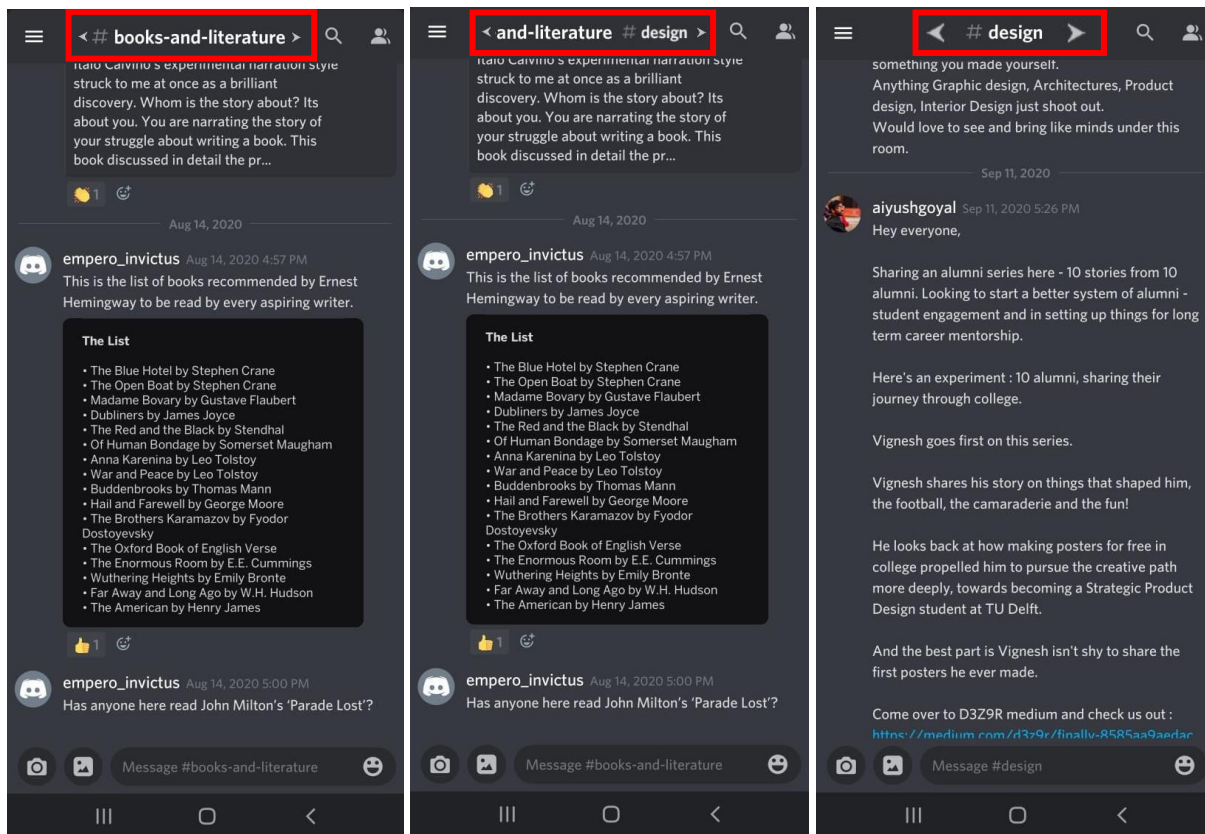
- Multiple text and voice channels issue
 - Default / Main text and voice channel **size increased and brought to top**
 - Increases visibility for the main channel (editable) – new users will not get confused which channel to go in a server
 - Compliant with **Fitt's Law** as size increased for main channel
 - Compliant with **Serial Position Effect, Peak and End Law, Primality** as main channel kept at top
 - Compliant with **Customisability** as main channel can be changed by server admin



- Direct Messages Issue
 - Home Page created with all servers and direct messages listed instead of listing in left part
 - Home page opens by default (like WhatsApp) (**Mental Model**)
 - If we keep pressing back icon, we end up at this Home Page (**Reversal of Actions**) and can restart our task in case anything goes wrong
 - Servers and Direct Messages provided as separate tabs to reduce confusion and for easy selection
 - Compliant with **Hick and Hyman's Law** of more time when selecting from more options (As servers and direct messages separated, lesser choices)
 - Swipe or tap to switch to other tab (**ease of use**)



- Poor navigation between channels in a server
 - o Instead of opening left options by swipe and then tap required channel, we can now swipe the channel name at top to move between channels with just 1 interaction (1 swipe)
- Compliant with ease of use
- **Swipe channel name left or right to switch between channels**

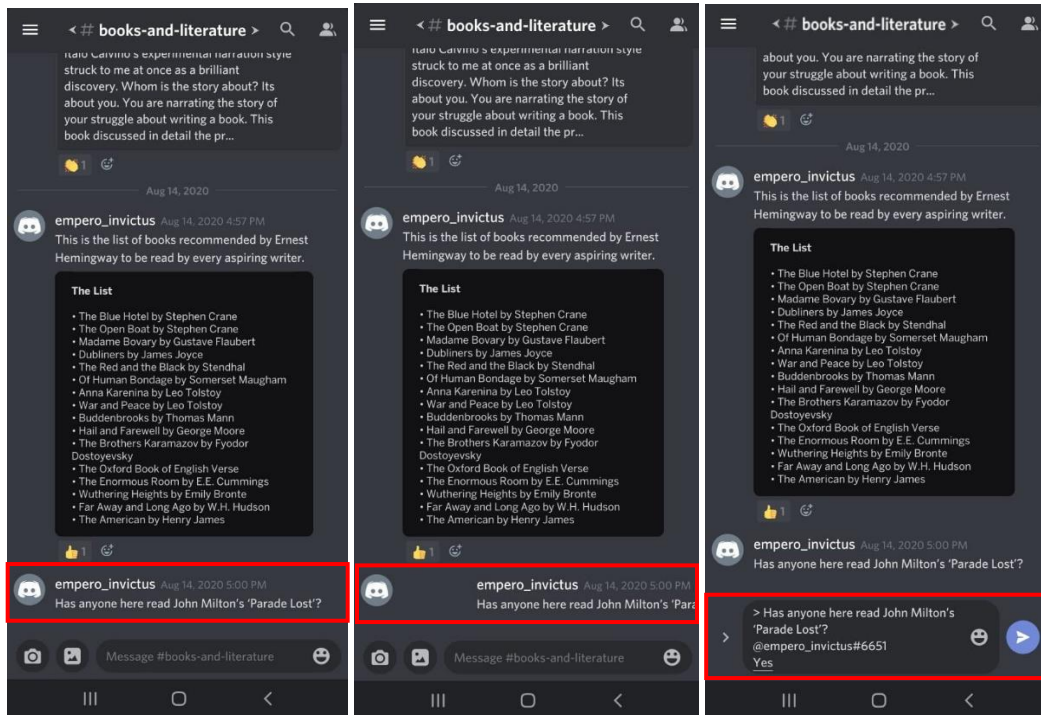


Channel 1

Swipe transition

Channel 2

- Quote and Edit issue
 - o Instead of long press message and select quote option, we can swipe the message to the right to directly quote
 - Similar model like in WhatsApp
 - Compliant with user **Mental Model**
 - Compliant with **ease of use** (only 1 Swipe as opposed to Long press + 1 Tap)
 - **Swipe any message to the right to quote it**

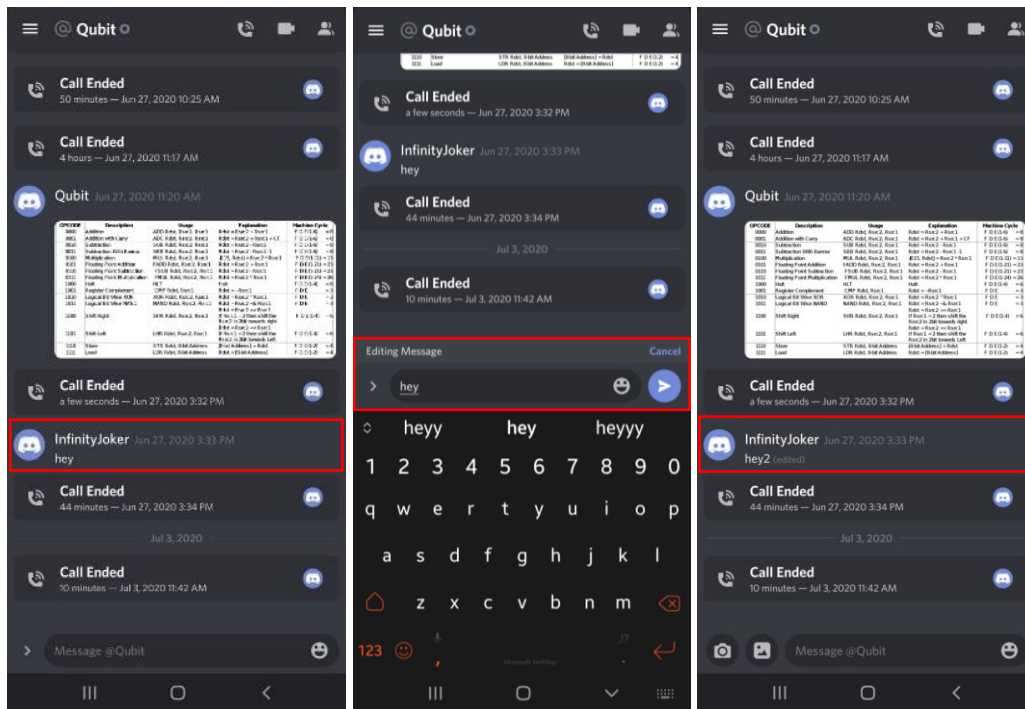


Message

Swiped message

Quoted message

- Instead of long press message and select Edit option, we can double tap a message to directly edit it
 - **Ease of Use**
 - **Double tap** any message to edit it

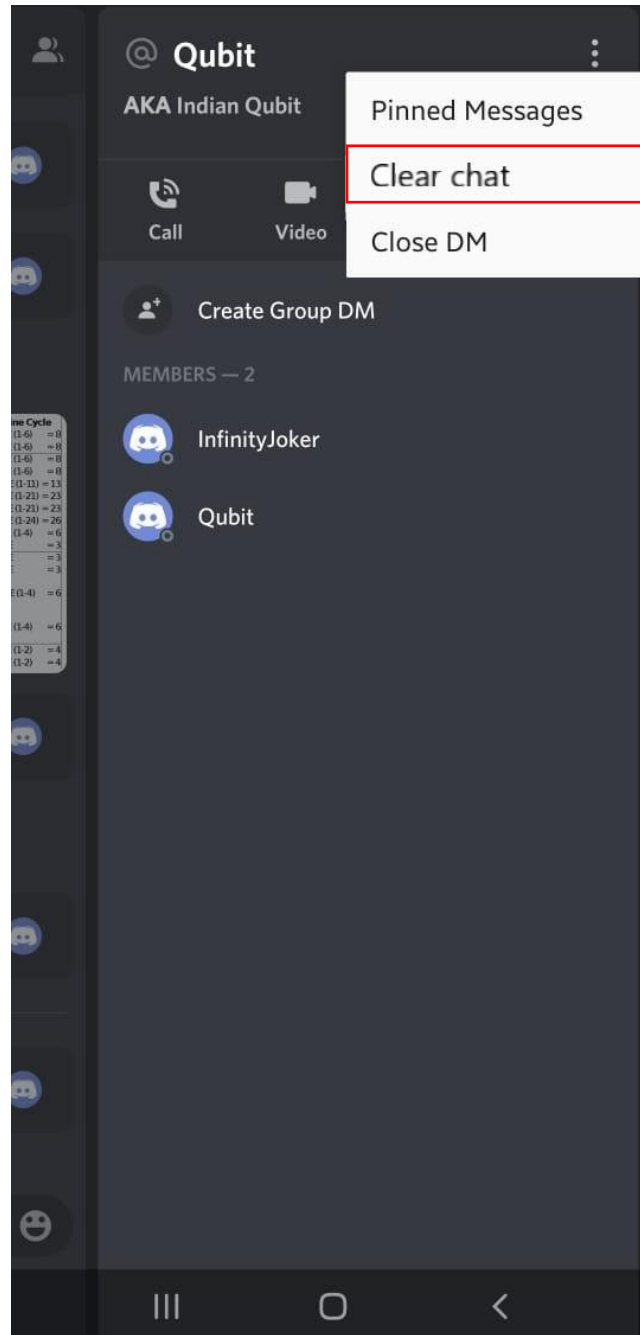


Message

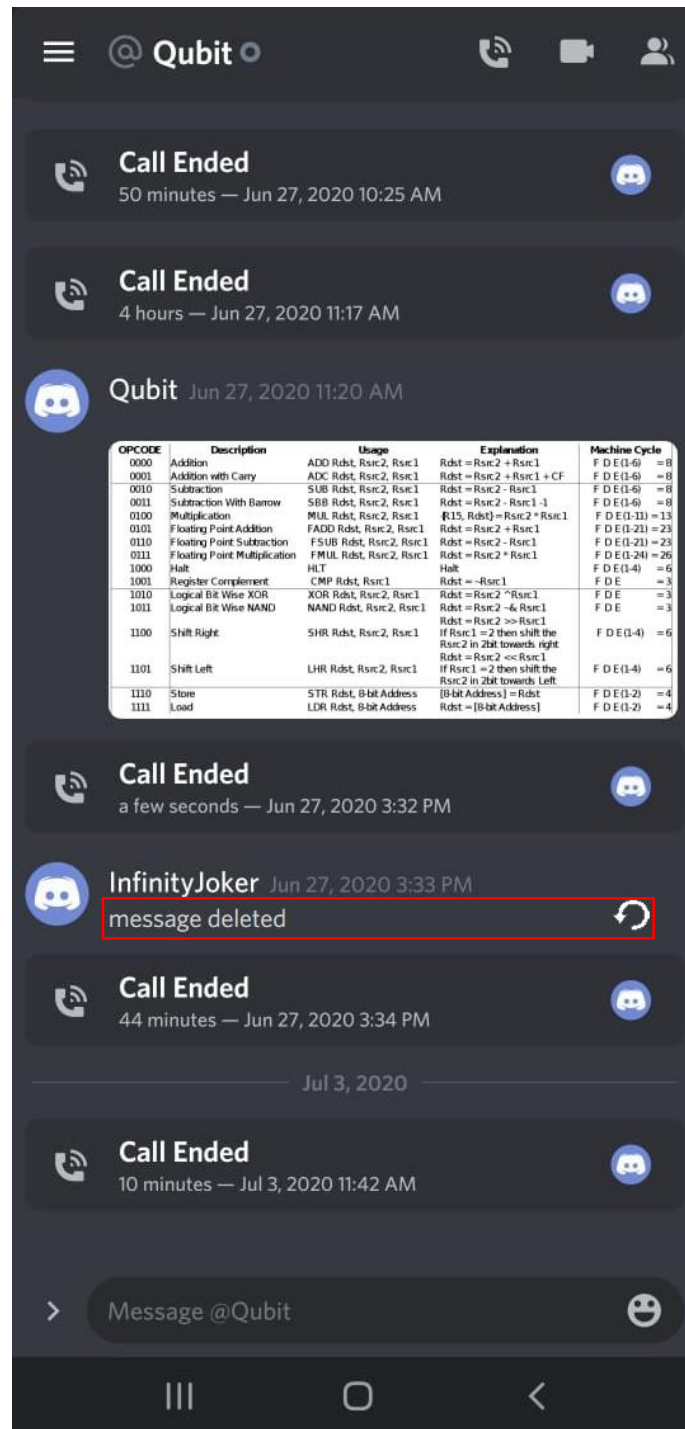
Double tapped – edit mode

Edited message

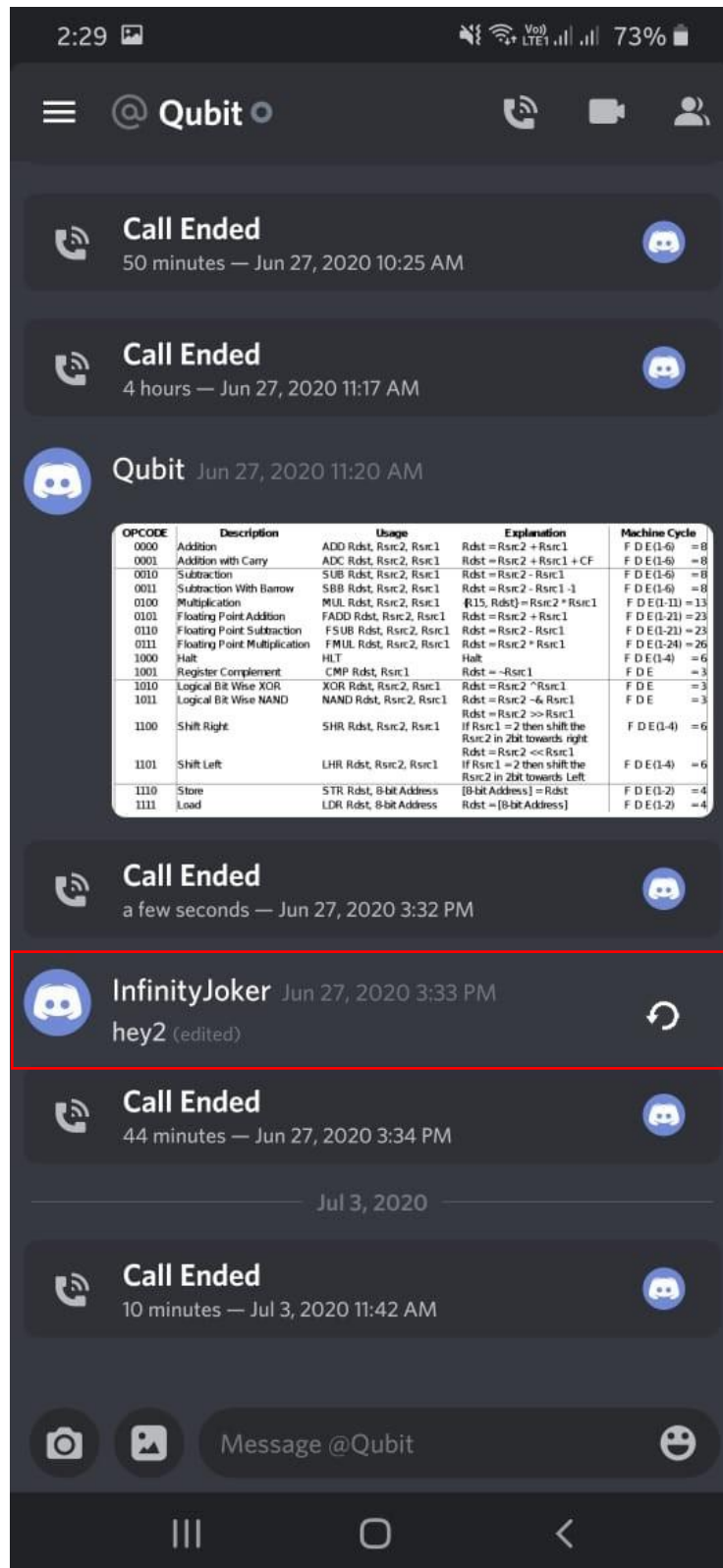
- Clear Messages and Media Issue
 - Ability to clear your messages provided at channel settings
 - Compliant with **Mental Model** (Similar position and icon as WhatsApp)
 - Clear Chat given RED colour to keep it compliant with **Colour Theory** (RED – Extreme Action)
 - Clear chat option kept at **middle** – compliance with **Recency and Primality** (Clear chat should be kept in middle as it is infrequent operation)



- Undo issue
 - o Ability to undo latest deletion or edit provided like follows
 - Compliant with **Reversal of Action**
 - o If message deleted, it displays message deleted with an Undo option. This will disappear when some other action like new message or another delete or edit is done.



- Similarly, when a message is edited, and undo option is provided below the message that also disappears after the next action is performed



Thus the improved discord application has been designed by analysing it using the various HCI laws and principles.