

# Microsoft Engage 2021

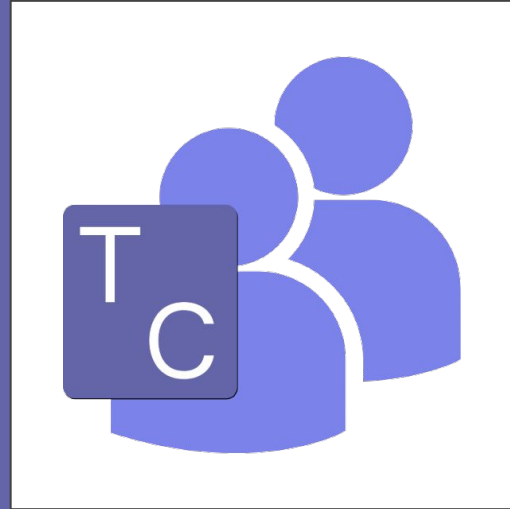
## Project: Teams Clone

Submitted By-

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# Problem Statement

A fully functional prototype with one mandatory functionality - a minimum of two participants should be able connect with each other using your product to have a video conversation.

**Surprise Feature-** Build a "Chat" feature in your Microsoft Teams Clone prototype.

# Agile Methodology

I have used agile scrum methodology while developing the prototype.

I did my work by creating sprints of my own to implement important features in my project.

I continuously integrated new features and resolved bugs of the previous integrated features.

# Sprint 1

25 June - 29 June

Major Feature added-

Authentication and  
Video calling

- Integrate Google Sign In Authentication
- Design UI for video calling feature
- Integrate Firebase Realtime database
- Implement two person video calling feature using PeerJS
- Add controls for video/audio toggle

# Sprint 2

30 June - 03 July

Major Feature added-

Realtime Chat between two users.

- Resolve bugs in previous feature
- Learn to implement chat in app
- Design UI for chat feature
- Integrate Chat Feature using firebase realtime database
- Test app and resolve bugs

# Sprint 3

04 July - 09 July

Major Feature added-  
Tasks, Motivation and  
Activities

- Resolve bugs in previous feature
- Implement Notes/Tasks feature
- Learn to use API in app
- Design UI for new features
- Integrate Motivation and Activities feature
- Test app and resolve bugs

# Sprint 4

10 July - 12 July

Major Feature added-

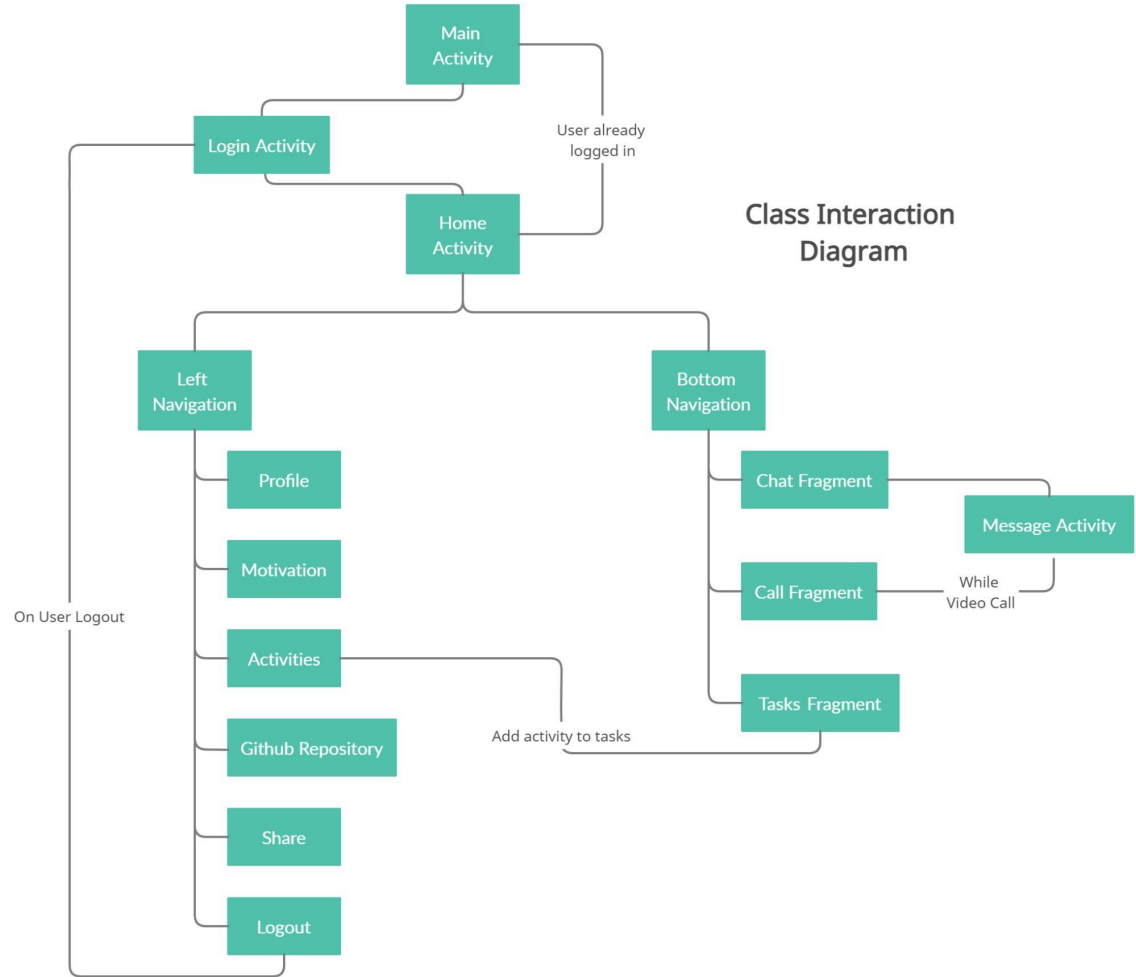
Picture in Picture mode,  
documentation and demo  
video

- Resolve bugs in previous feature
- Implement Picture in Picture mode for video call
- Prepare documentation and video demo
- Test app and resolve bugs

A detailed timeline can be found here-

<https://drive.google.com/file/d/1KI5pz7G9JuBxw7ACOQXMLWI0lpQFcF7/view>

# Class Interaction Diagram





# Features

- Sign in with google
- Video Calling between two users
- Toggle Video during call
- Toggle Audio during call
- Picture in Picture mode available during video call
- Name of person calling is displayed
- User can accept / reject incoming call
- Realtime status updated- Online, Offline, On another call

# Features

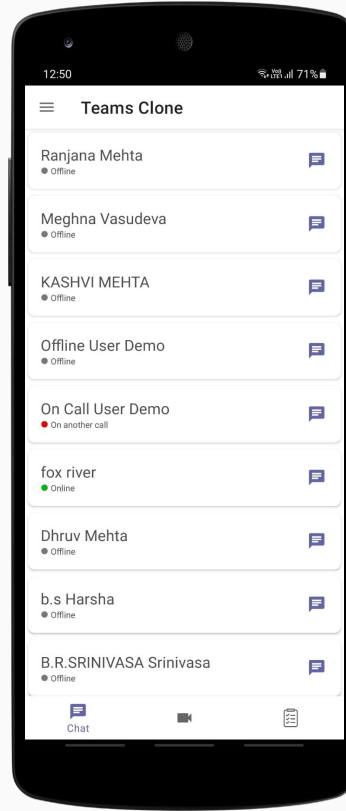
- Realtime Chat between two users
- Chat before meeting
- Chat during meeting
- Chat after meeting
- Messages timestamp displayed
- User can add Notes/Task
- Set priority of tasks- low, moderate and top
- Edit a task
- Delete a task
- User Profile view (Name, Profile Picture and Email)

# Features

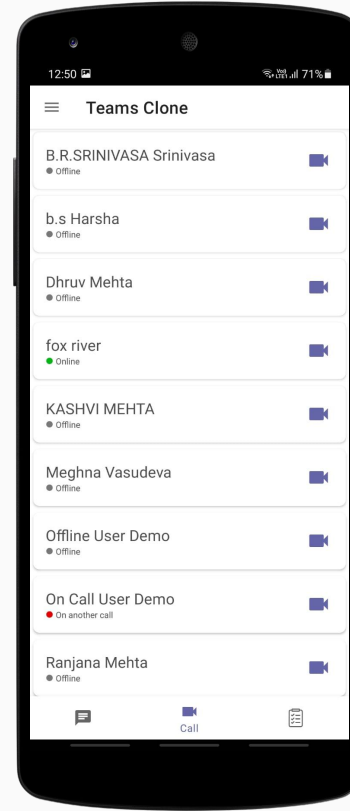
- Motivation (Display a motivational quote to user)
- Share Motivational quote with others
- Activities (Display a random activity to user)
- Add activity to task
- Share activity with others
- Github repository link
- Share the app with others
- Logout

# Project screenshots

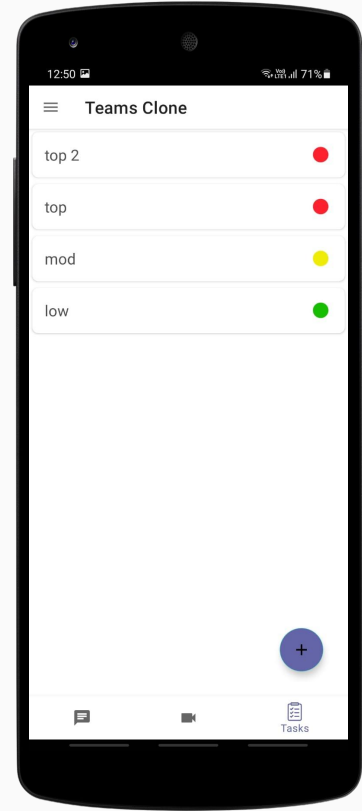
# Home Screen



Chat Fragment



Call Fragment

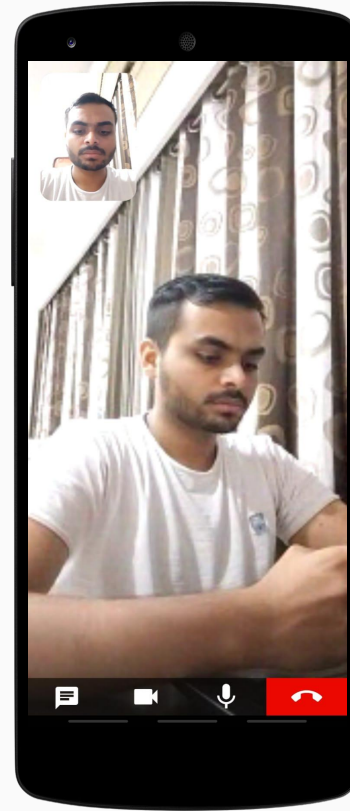


Tasks Fragment

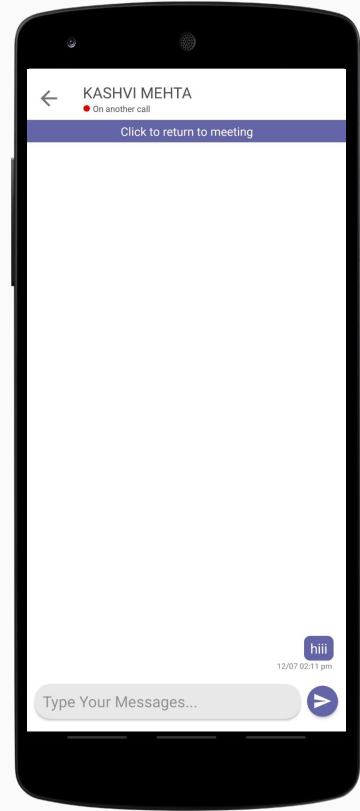
# Video Calling



Incoming Call

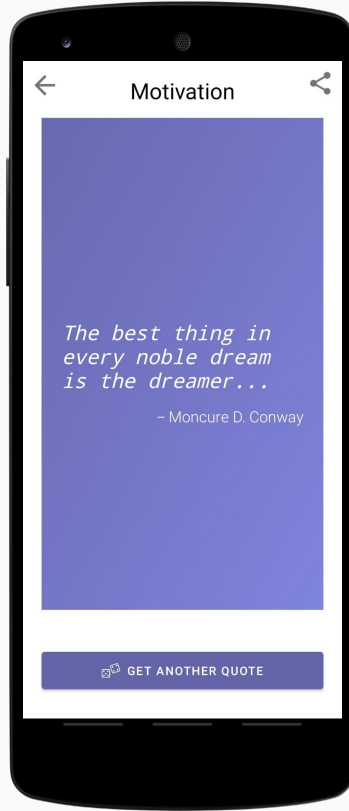


Video Call

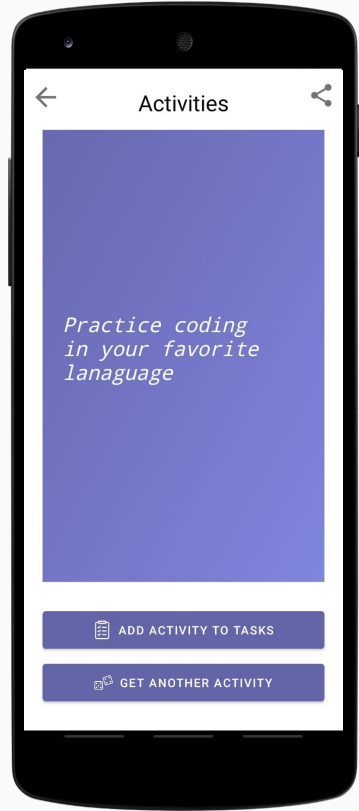


Chat during call

# Other Features



Motivation



Activities

# Future Scope

- Notification for call and chat can be implemented.
- Group Video calling and chatting can be included.
- Screen Sharing can be integrated.



# Important Links

**Github Repository-** <https://github.com/yashmehta17/TeamsClone>

**Timeline-** <https://drive.google.com/file/d/1KI5pz7G9JuBxw7AC0QXMLWI0lpQFcpF7/view>

**Video Link-** <https://youtu.be/cSpnMCwCz6k>