

SW Engineering CSC 648/848

HeapOverload - h0

Section 01 Team 4

Milestone 2

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Team Members:

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1. Data Definitions v2:

Class User:

No.	name_field	Data Type	Description
1	u_id (Primary Key)	String	User Id
2	username	String	Username
3	password	String	User's password
4	email	String	Email
5	posts	List	Lists of user's posts
6	follower	List	List of followers
7	level	int	Level is for user's active time
8	rating	double	Rating proves how professional user is
9	user_bio	String	User biodata
10	occupation	String	User's occupation
11	company	String	User's company

Class Follower:

No.	name_field	Data Type	Description
1	u_id (Primary Key)	String	User Id
2	username	String	Username
3	level	int	User's level

Class Post:

No.	name_field	Data Type	Description
1	p_id (Primary Key)	String	Post Id
2	date	DateTime	Date
3	title	String	Title of the post
4	author	String	Author
5	content	String	content
6	tag	String	Related topics
7	replies	List	Replies
8	replyNum	int	Number of replies

Class Reply:

No.	name_field	Data Type	Description
1	r_id (Primary Key)	String	Reply Id
2	time	DateTime	time
3	author	String	The person who posted the reply
4	content	String	The content of reply
5	type	String	Reply could be text or video
6	rating	double	Rating

2. Functional Requirements V2:

Priority: 1 - ASAP; 2 - Important; 3 - Not as important; 4 - When we have time; 5 - Optional

ID	Title	Description	Priority	Story
001	Add Post	<ul style="list-style-type: none">• Users will need to ask their questions• User will need to be able to add specific tags to their posts	1	All

		<ul style="list-style-type: none"> • Server will parse the information and store it properly • Server will add posts to the corresponding tag list 		
002	Reply to Post	<ul style="list-style-type: none"> • Users will need to be able to reply to posts when they find it. • Server will parse the information and store it properly • Server will add comments to the corresponding tag list 	1	All
003	Search for Post	<ul style="list-style-type: none"> • Users will need to be able to find specific posts they are looking for • Users will be able to find it by tag or content. • Server will parse the information and display specific posts properly 	2	All
004	Edit Post / Replies	<ul style="list-style-type: none"> • Users will need to be able to update their posts and replies. • Users will parse the information and restore it properly • Server will update post contents and comments to the corresponding tag list 	2	~
005	Vote on a Post	<ul style="list-style-type: none"> • Users will need to be able to vote whether a reply was good or bad. • Server will parse the information and store it properly 	4	Lucy / Shawn
006	Delete Post	<ul style="list-style-type: none"> • Users will need to be able to delete their post when they want to. • Server will parse the information and store reply messages properly • Server will parse the information and delete posts 	3	~
007	User Accounts	<ul style="list-style-type: none"> • Users will need to be able to make their own account. • Server will keep records of their posts, replies, and connections 	1	All

008	Embedded Video Player	<ul style="list-style-type: none"> • Users should be able to share videos and have them play on our application • Server will parse the information and store it properly • Server will add video from posts to the corresponding tag list 	4	Lucy
009	Verified Users	<ul style="list-style-type: none"> • Some users should be able to apply to become a verified user • Verified users should have their replies and posts at the top • Server will parse the information and store it properly 	5	Lucy
010	Notifications	<ul style="list-style-type: none"> • Users should be able to change their preferences on what notifications they get and how they get them. • Server will parse the information and store it properly 	3	~
011	Live streaming of categories	<ul style="list-style-type: none"> • Verified users should be able to stream lectures or other informational information to a category. • Server will parse the information and store it properly 	5	~
012	Level of Urgency	<ul style="list-style-type: none"> • Posters should be able to specify how urgently they need an answer to be solved. • Server will parse the information and store it properly • Server will add level of urgency from posts to the corresponding tag list 	4	~

3. UI Mockups and Storyboards

logo Website name (button that goes to home) search bar Posts Login

About info

User Login

Username:

Password:

Login Button

New user? (link)

logo Website name (button that goes to home) search bar Posts Login

Post 1

Post Detail (button)

Post 2

Post Detail (button)

logo Website name (button that goes to home) search bar Posts Login
Create new post (link)

Title

Comment here

send button

logo Website name (button that goes to home) search bar Posts Login

Title (fill in text)

Text

Post (button)

logo Website name (button that goes to home) search bar Posts Login

USER REGISTRATION

First Name:

Last Name:

Email Address:

User Type: ☐ Teacher ☐ Student

Password:

Confirm Password:

Create User

4. High Level Architecture, Database Organization:

Database Organization:

Database

Users Collection

```
user: {
  u_id: 56464
  username: "Username"
  password: "58as65d4a56s4d6"
  email: "username@mail.com"
  posts: [65564, 56462]
  followers: [8793, 5464]
  level: 5
  rating: 7.8
  user_bio: "Hello I'm User"
  occupation: "Worker"
  company: "Corp Inc"
}

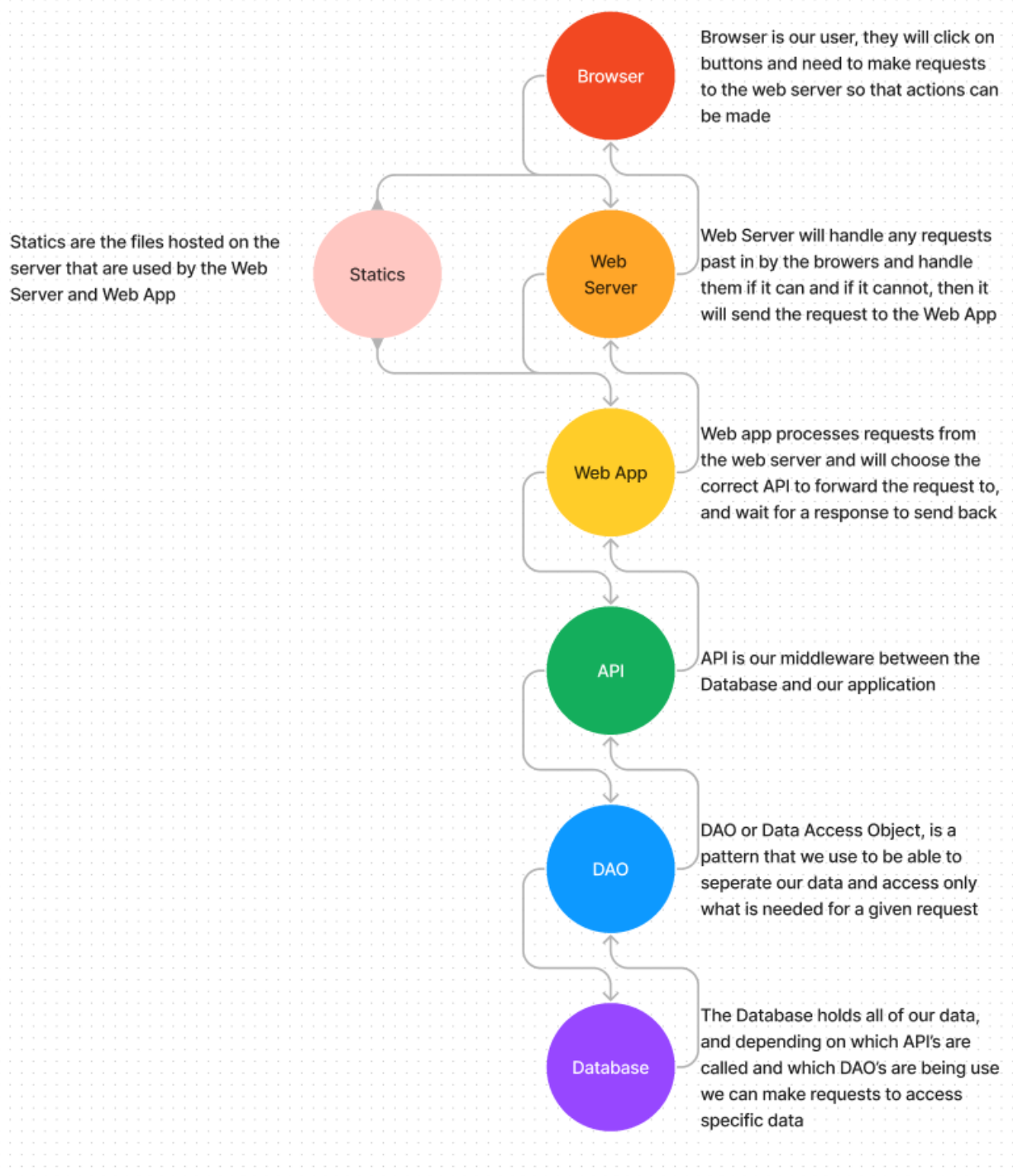
user: {
  u_id: 238432
  username: "woo"
  password: "3743#mieu8470283"
  email: "usernam@yahoo.com"
  posts: [37351, 49372, 76483]
  followers: [2374, 2733, 9832, 87323]
  level: 3
  rating: 8.2
  user_bio: "Hello new to the community, good at Java, C"
  occupation: "Software Engineer"
  company: "Google Inc"
}
```

Posts Collection

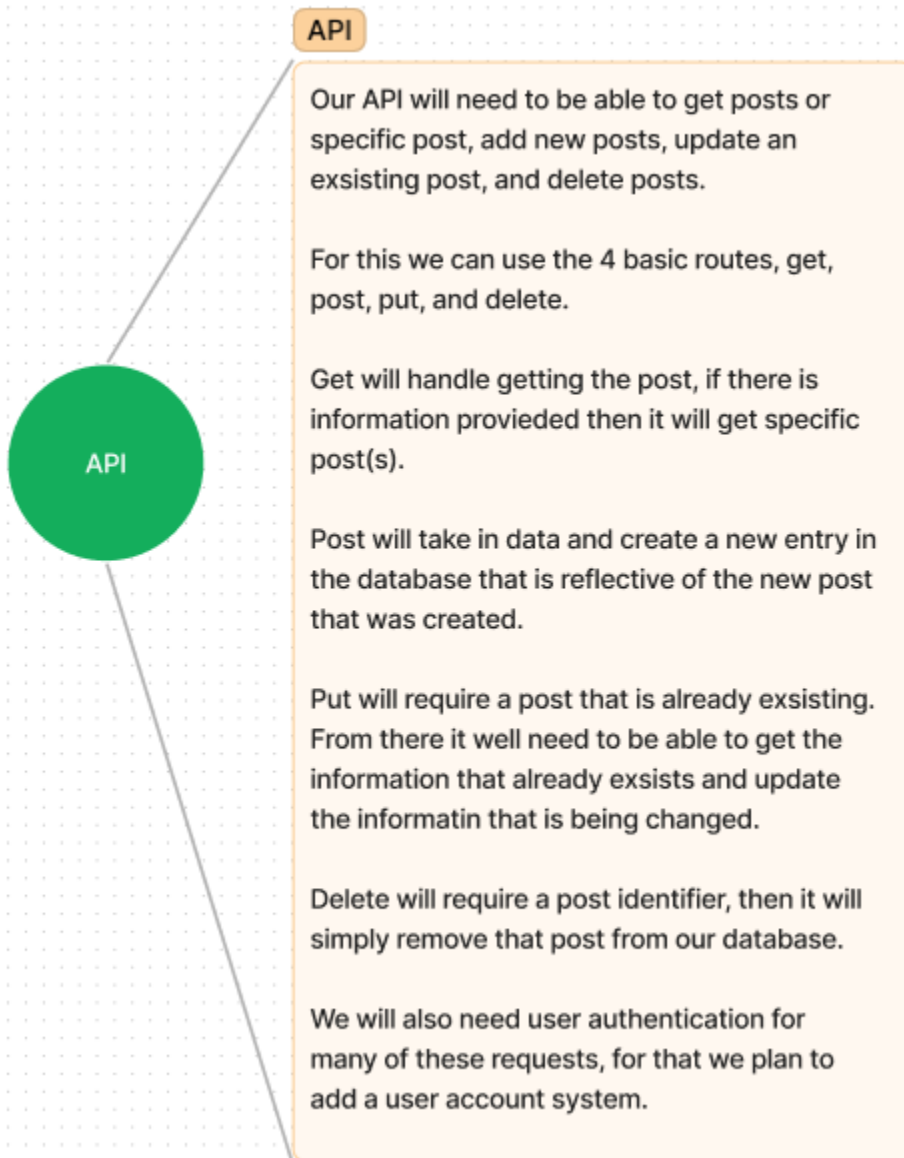
```
post: {
  "p_id": 1321,
  "date": 2022-08-14,
  "title": "Dummy Title",
  "author": "dummy author",
  "content": "dummy content",
  "tag": "dummy tag",
  "replies": [
    {"reply": {"r_id": 12, "time": 2022-08-14, "author": "John", "content": "dummy content"}, "type": "text", "rating": 3},
    {"reply": {"r_id": 13, "time": 2022-08-15, "author": "Michael", "content": "dummy content"}, "type": "text", "rating": 5}
  ],
  "replyNum": 2
}

}
```

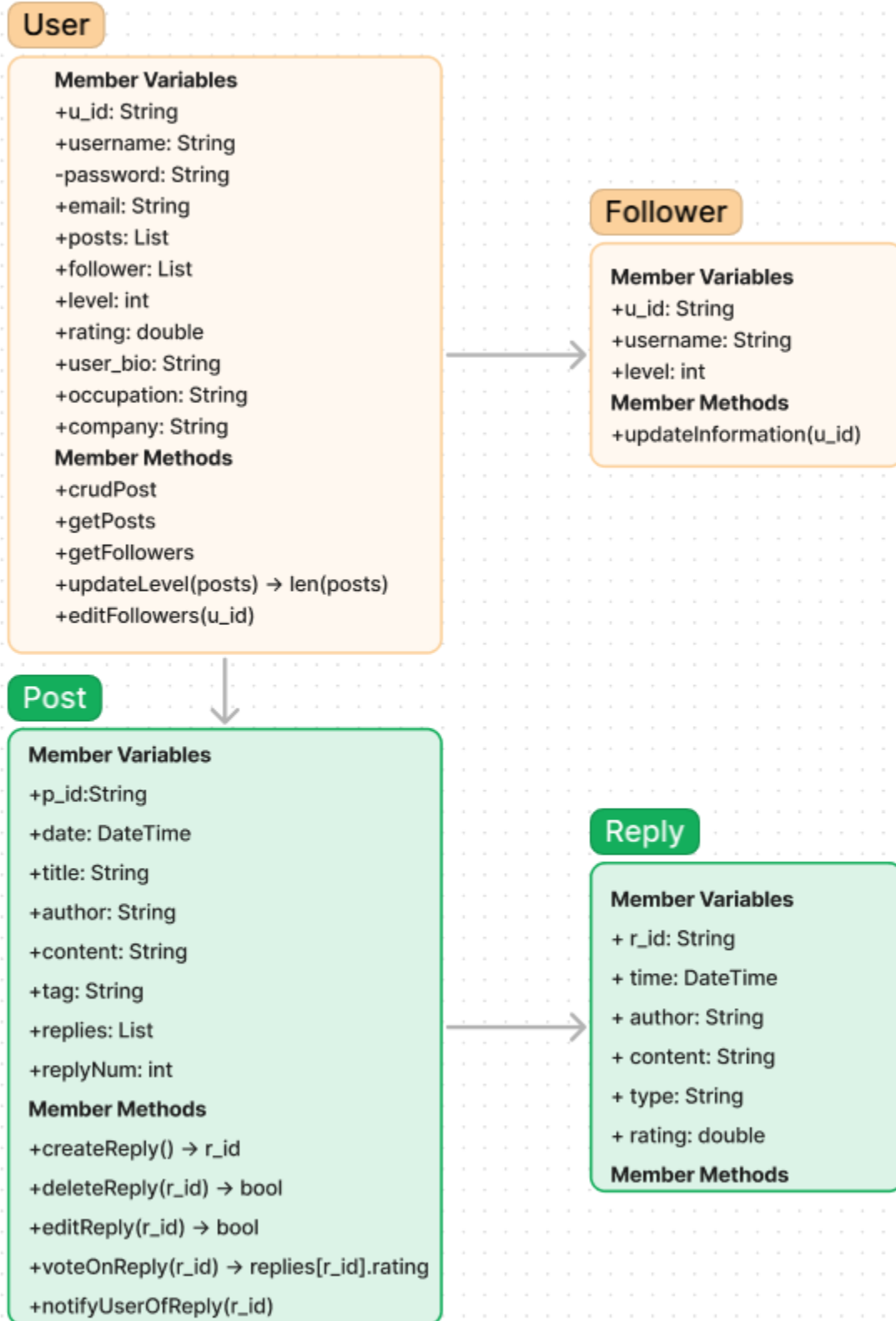
Architecture:



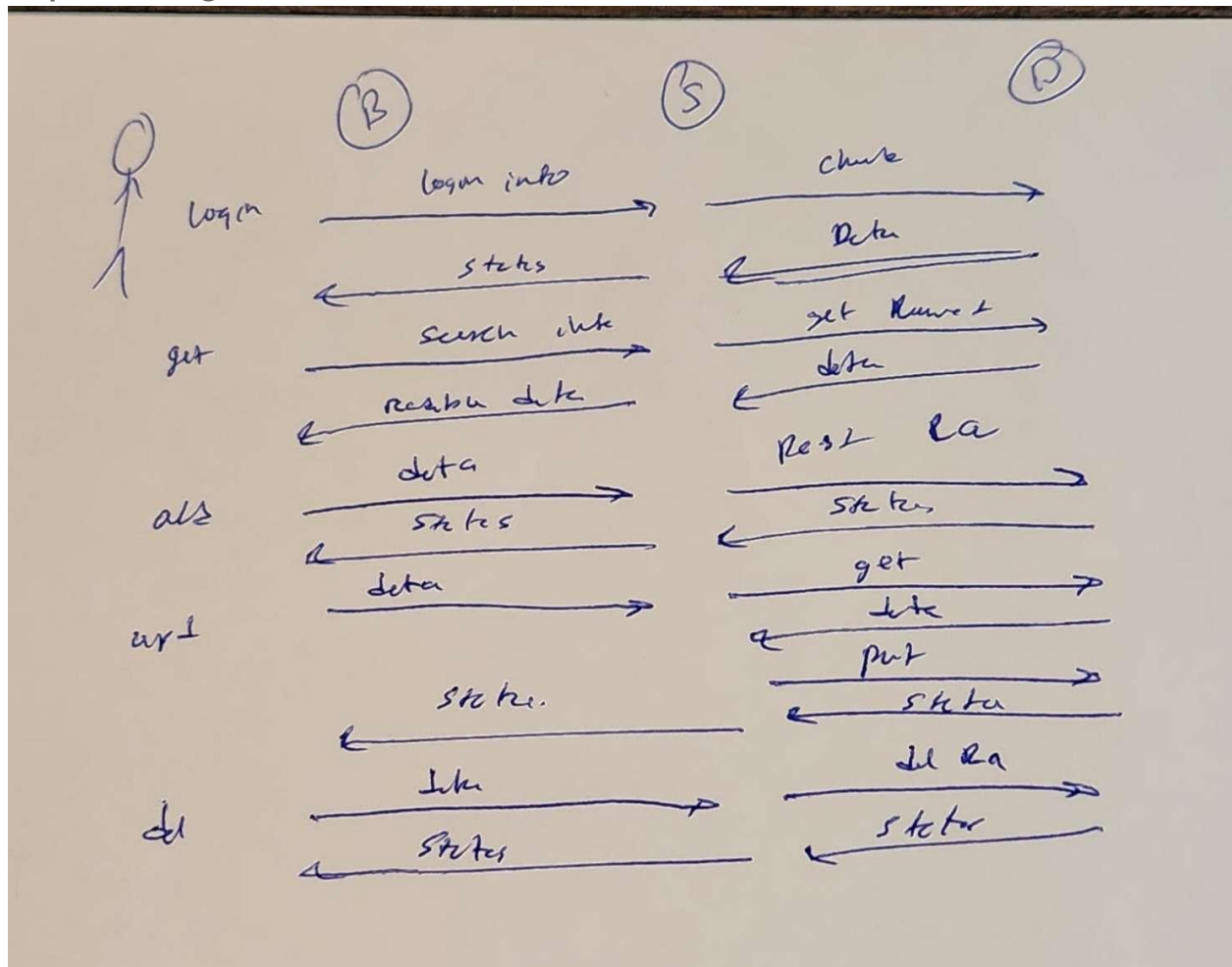
APIs



5. High Level UML Diagram



Sequence Diagram



6 .Identify *actual* key risks for your project at this time

Skills risks:

Our team is using the Mern stack to develop applications. Most of the developers are new to MongoDB, react and node JS. We are a team of 6.. We have assigned two developers for front end development and two developers for backend development, one as github master and one as scrum master. So for the study plan we are sharing youtube videos , W3 school or other resources that the developer found very useful in the discord channel. All the team members are required to watch or learn those resources.

Schedule risks:

Our team is having two scrum meetings every week. Tuesday and wednesday. And we are currently using zoom, discord and text message as a communication medium. We are not using any project management tools. Instead we are using google docs to give the update about the

meeting and update about the task. It's been difficult to track the progress of the work and team performance. So we are planning to use Jira as project management tools.

Teamwork risks:

Everybody in the team is expected to attend all the scrum meetings. Because some of the technologies may be very new to the developers, it's very likely that they might face issues while developing and they might not keep up the pace. So in every scrum meeting, the first 5 minutes we are planning to discuss what they did yesterday and what kind of blockers they have. And in the remaining time we will discuss the blocker and try to resolve that issue so that every assigned task will be completed in time. All the team members are in senior level at their college and they have a very tight schedule. They might feel exhausted. So we are planning to organize some refreshment activities to motivate and appreciate the team members.

7. Project management

Our team is using discord, zoom and text message as a communication medium. We are using zoom to schedule any meetings and discord and text message for any question and discussions. We are having two scrum meetings every week which last between 30-45 mins. We are using google docs to give the update about the meetings. That docs is shared in the discord channel so every team member can access that. For tracking the progress of the work we are using the google docs. However, it's been difficult to share and track the progress of the work. So we have decided to use jira for the project management. By that we can easily track and see the progress of the stories.