MICROSOFT ENGAGE 2021

MICROSOFT TEAMS CLONE

BY:

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This web-app has been developed for completion of Microsoft Engage 2021 project.

ACKNOWLEDGMENT

- Microsoft UR team for giving us the wonderful opportunity to participate in the programme

- My mentors Mr. Akshit Bhatia and Mr. Madhusudhanan Krishnamoorthy for their invaluable suggestions and encouragement

- Mr. Vivek Shangari for the conducting some super-enlightening sessions and solving our queries with utmost kindness

- Mr. Bhaskar Shrotiya for organizing a number of webinars for our learning

- My parents for always motivating me to push my limits

AGILE METHODOLOGY

SPRINTS (3-4 DAYS EACH)

- **SPRINT 1 :** Qualify minimum criterion

- **SPRINT 2 :** Integrate Template

- **SPRINT 3 :** Add user authentication

- **SPRINT 4 :** Add mute/unmute and switch on/off webcam feature

- **SPRINT 5 :** Add screensharing

- **SPRINT 6 :** Incorporate database for 'Teams' feature

- **SPRINT 7 :** Adapt Stage (Chat feature)

- **SPRINT 8 :** Deploy web-app

CODE STRATEGIES ADOPTED

- Keep data confidential
- Avoiding hard-coding to make code flexible for further improvisations
- Breaking a piece of code into functions
- Using systematic variable names
- Commenting the code
- Using proper indentation (thanks to Atom Beautify)

TECH STACK

- Backend
  - NodeJS 14.17.0
  - *Frameworks: express, peerjs, socket, uuid, google-auth-library*
  - *Database: MySQL 8.0.25*

- Frontend
  - HTML/CSS
  - Bootstrap 5.0
  - JavaScript HTML Document Object Model

- Version control
  - Git 2.30.0

- Authentication
  - Auth0

FEATURES

1. Video conferencing with 2 or more users
2. Mute/unmute and switch on/off webcam
3. Screensharing while on call
4. User Authentication
5. Security of team's meeting room (no anonymous user can join a team)
6. Data Privacy (Users cannot access other users' data)
7. Create new team
8. Join new team
9. Change user name
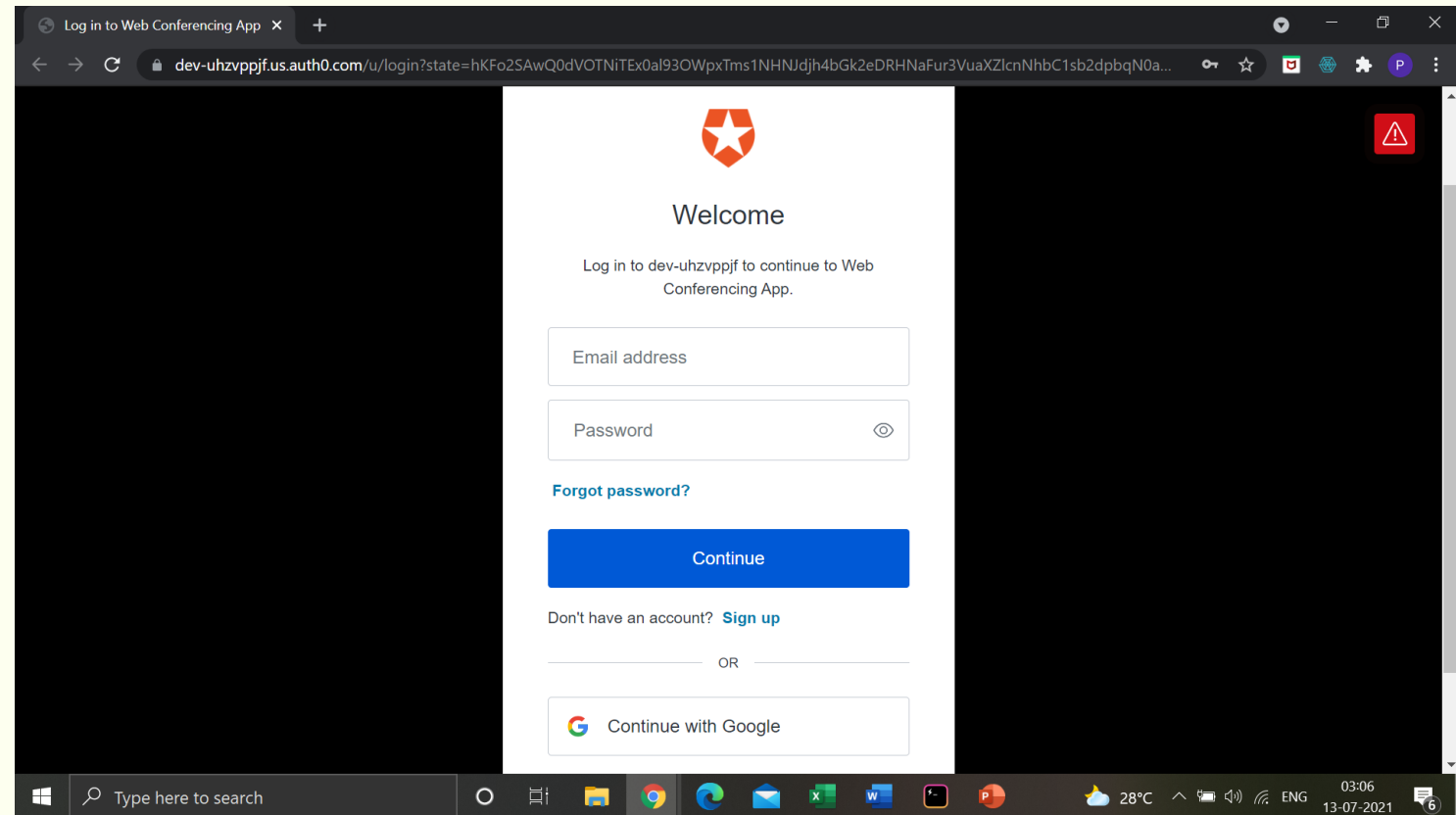10. **Chat (Adapt Stage Challenge)**
    o Chat on the team's page <u>before starting a call</u>
    o Chat <u>while on call</u> with other team members
    o <u>Continue the conversation</u> post the call
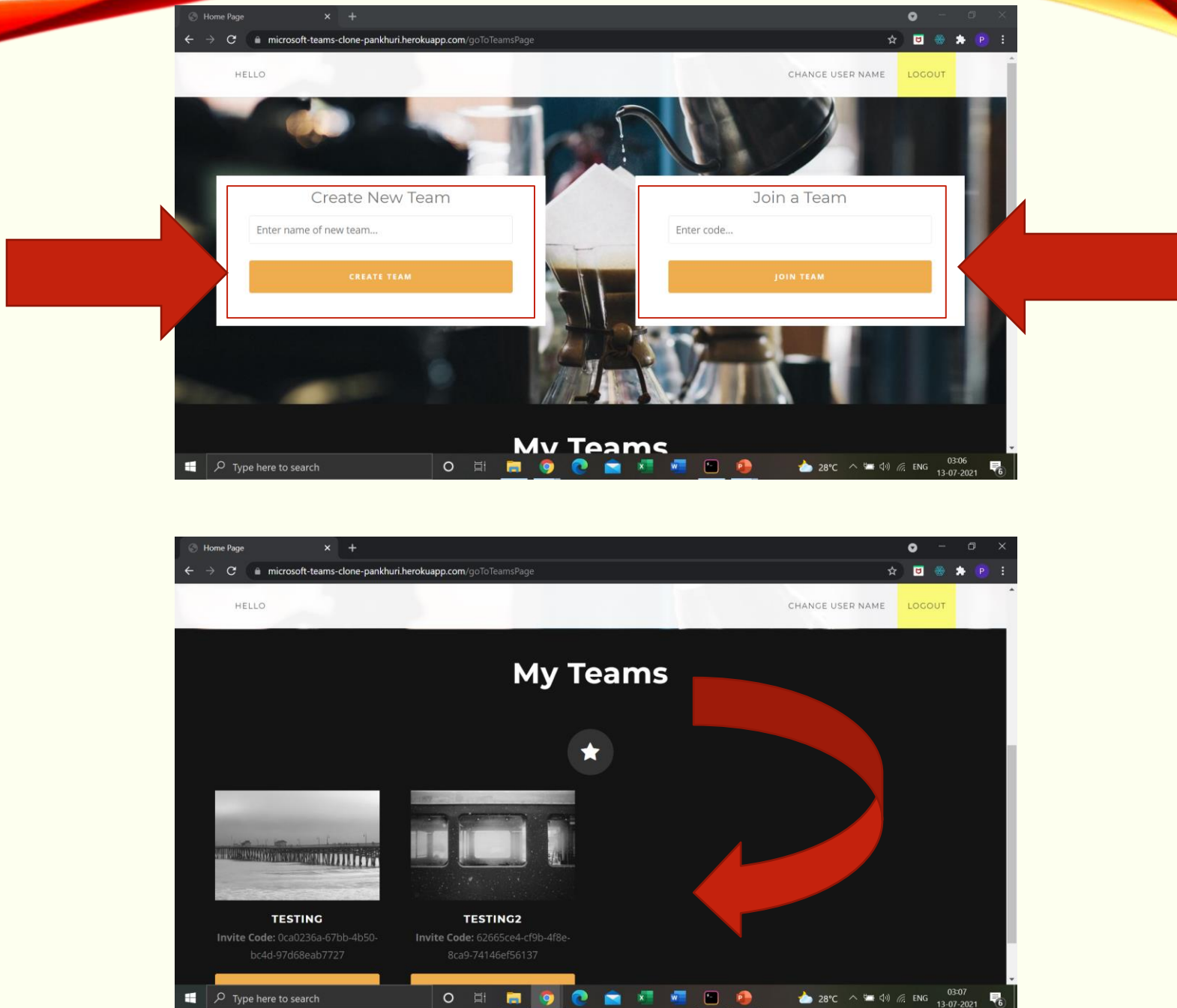
USER GUIDE

1. LOGIN

Users may login via their email and password or simply by using their Google Account

2. MY TEAMS PAGE

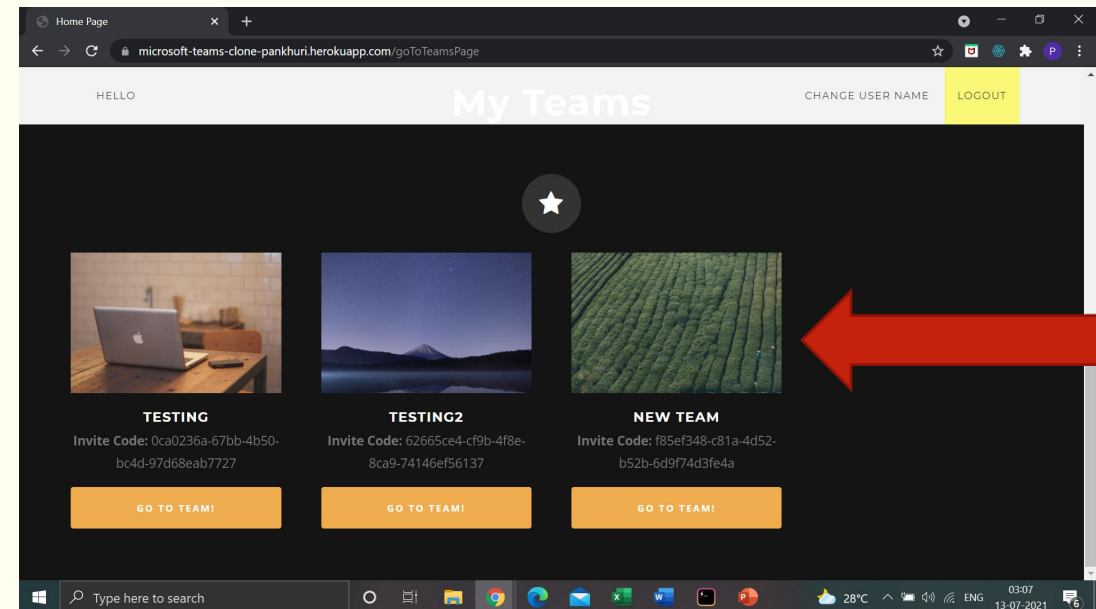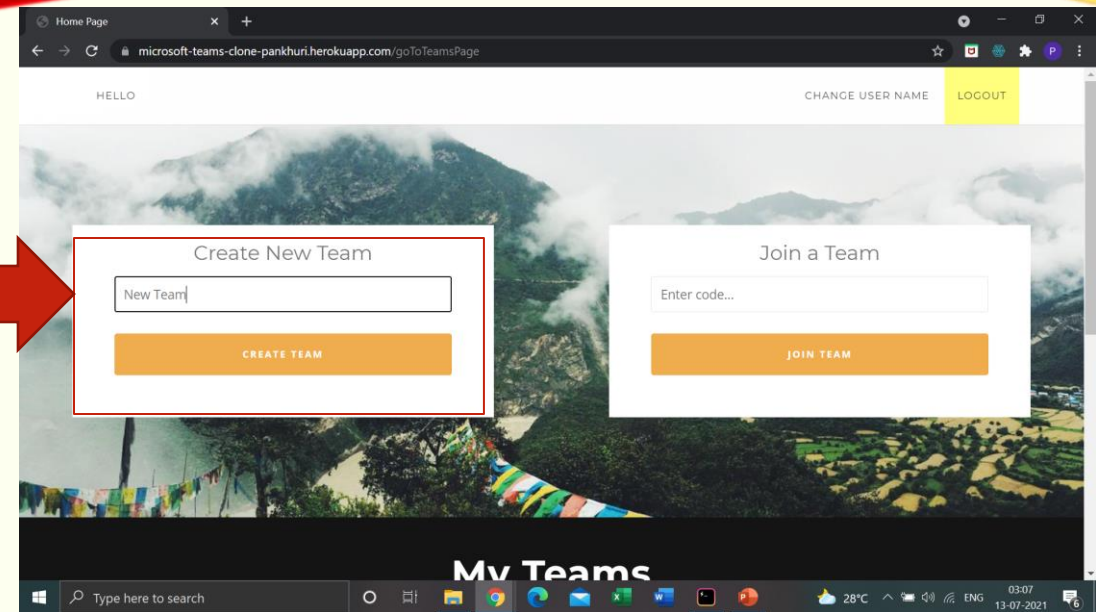Users shall be redirected to the 'My Teams' Page where they can create a new team or join an existing team.

The page also contains a list of all the teams a user is part of.

3. CREATING A NEW TEAM

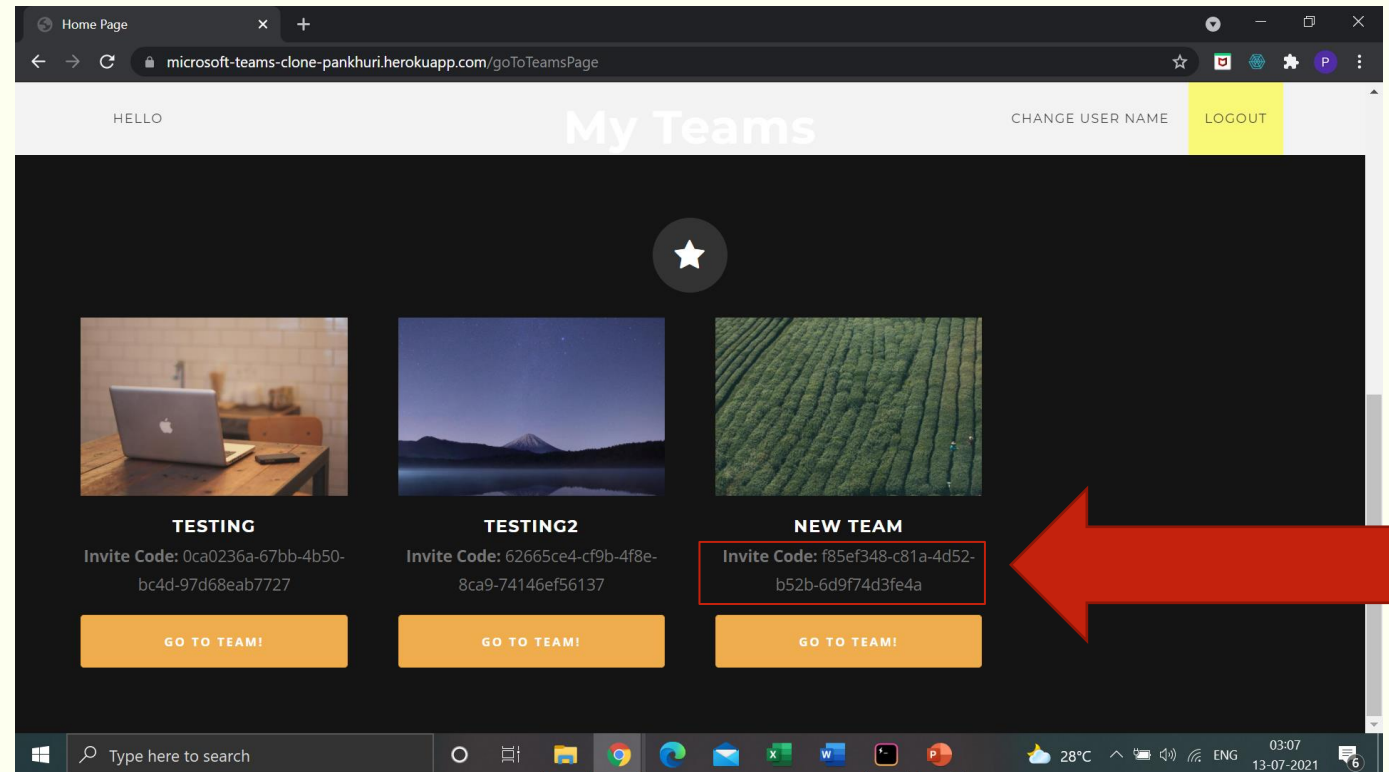Enter name of new team and click on "Create Team"

The new team shall get appended to the user's teams list at the bottom

4. INVITE PARTICIPANTS TO TEAM

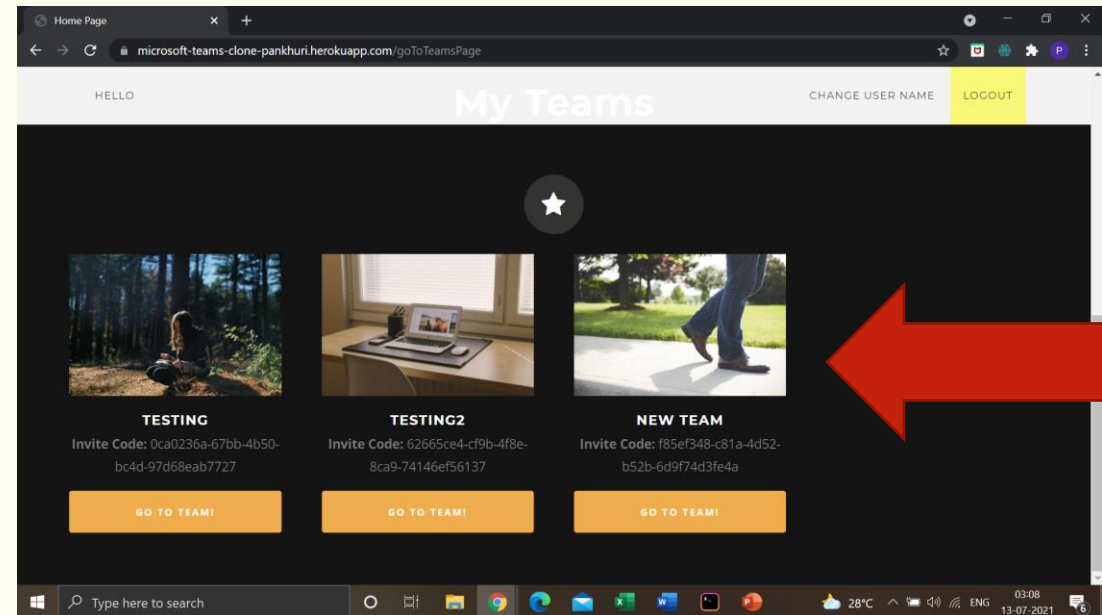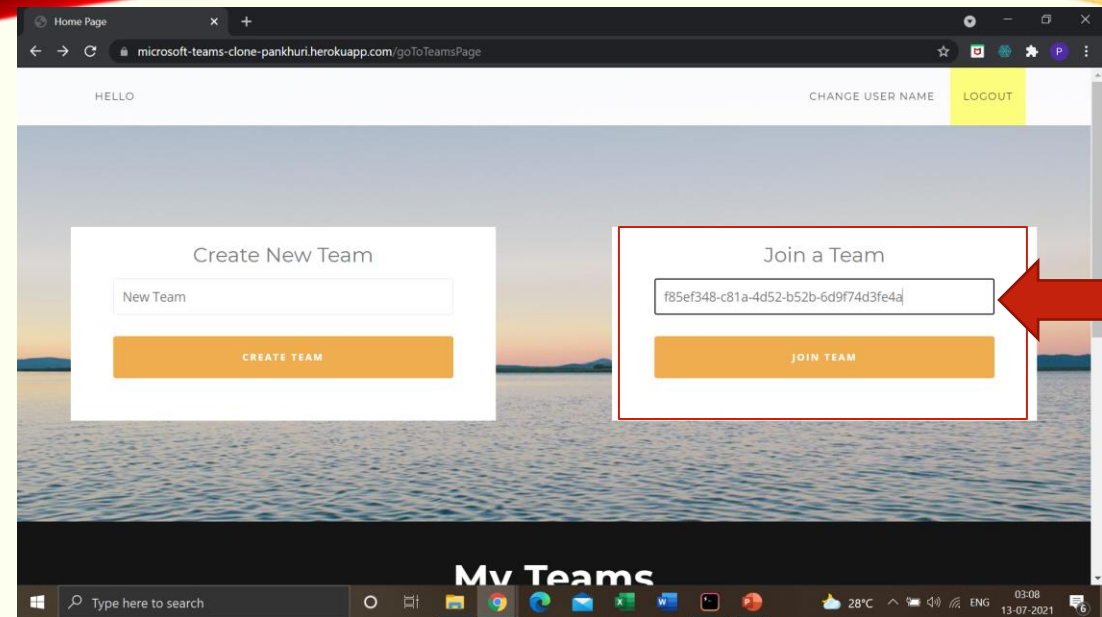Navigate to the team on the list of teams section.

Copy the invite code (written below the team's name) and send it to the invitees

5. JOINING A NEW TEAM

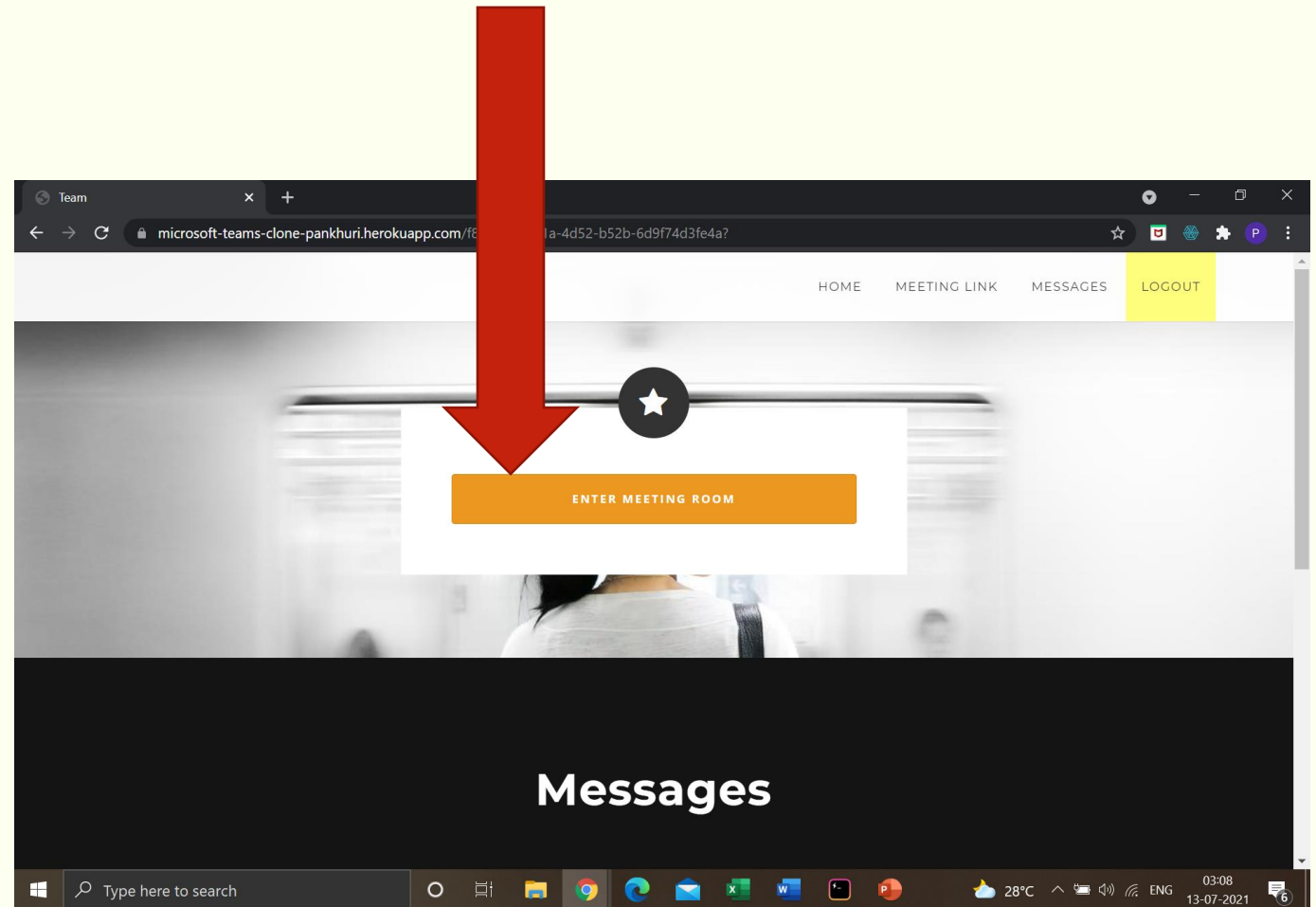Enter invite code of some existing team and click on "Join Team"

The new team shall get appended to the user's teams list at the bottom
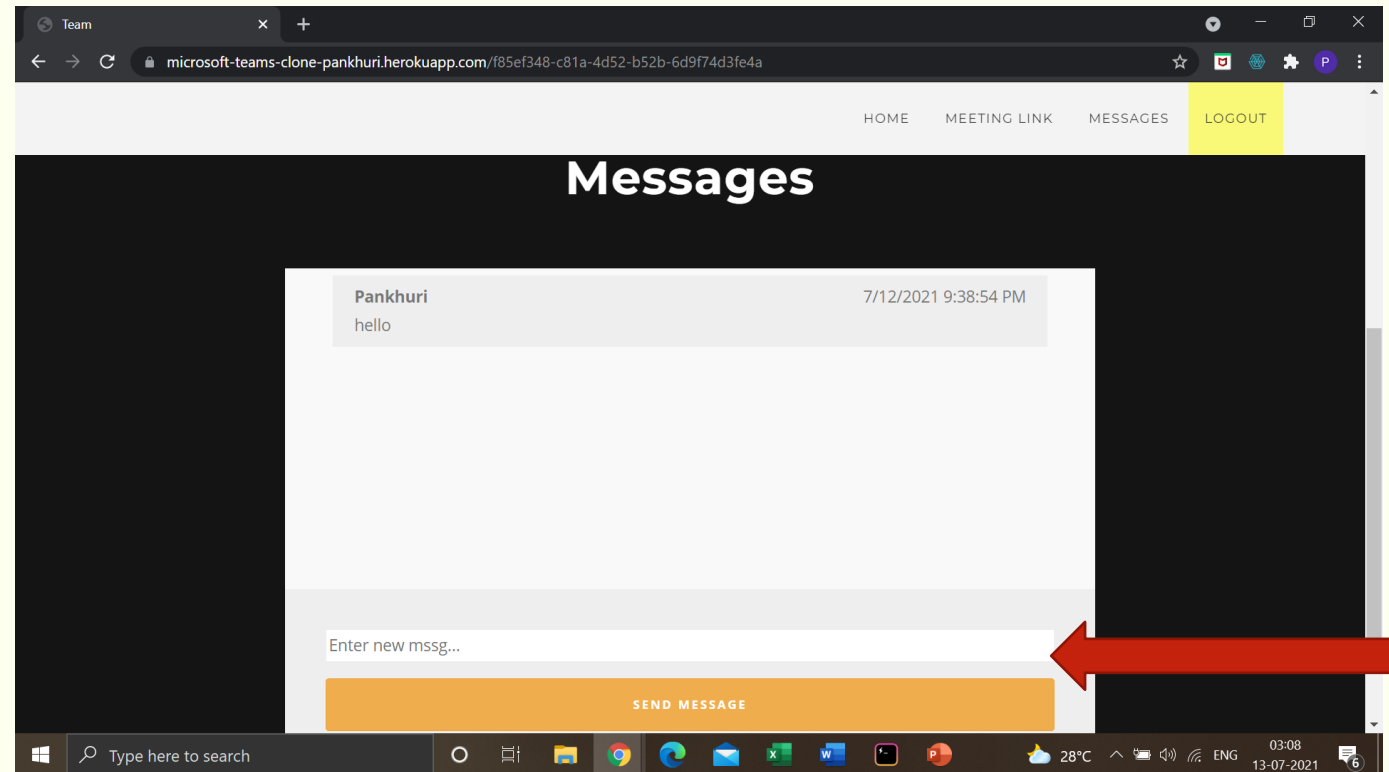
6. ENTER MEETING ROOM

Click on the "Go to Team" button to go to the team's page.

Click on "Enter Meeting Room" button to join the video call.

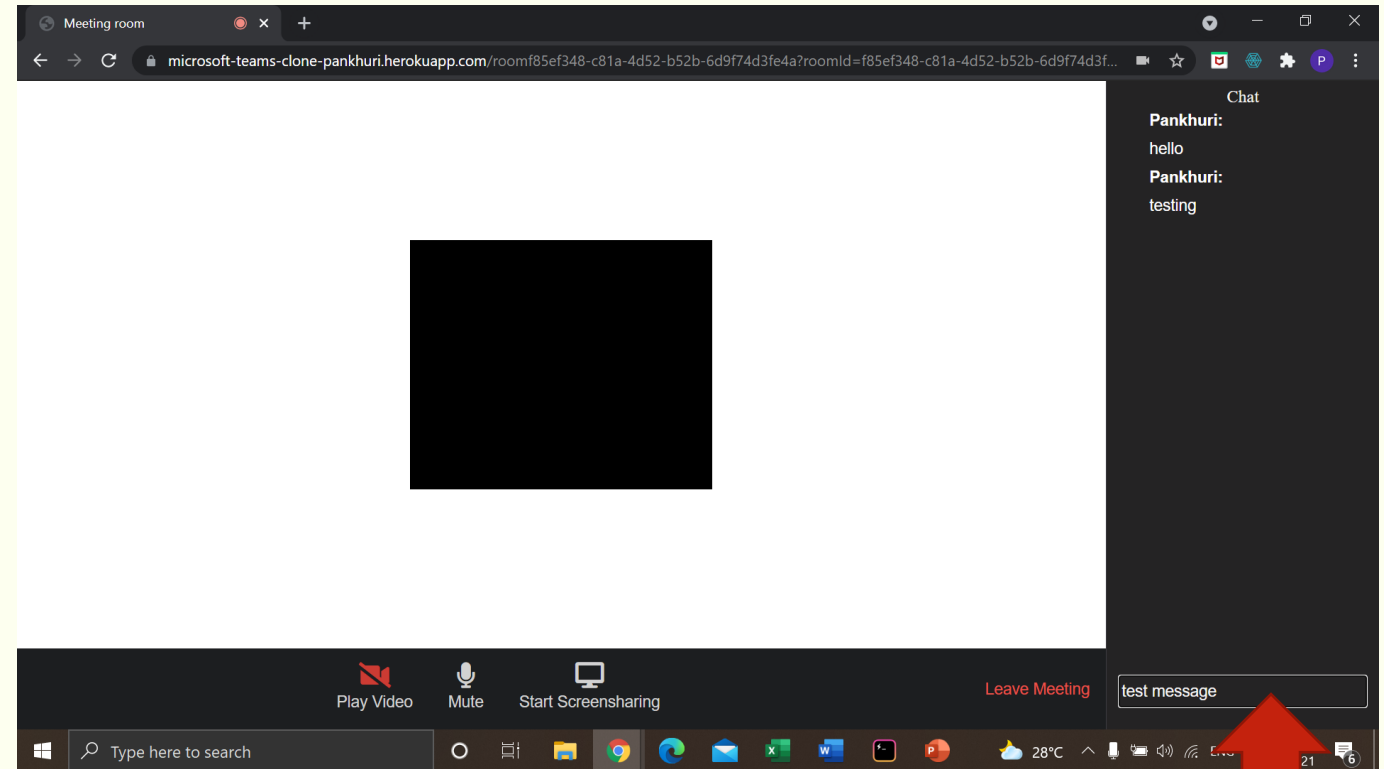# 7. SEND MESSAGES TO OTHER USERS IN A TEAM BEFORE CALL

- Click on the "Go to Team" button to go to the team's page.

- Scroll to the "Messages" section.

- Enter the message in the prompt and click on "Send Message".

- Your message shall get appended with the current data and time

8. SEND MESSAGES WHILE ON A CALL

Use the chat box to send any new message.

The conversation during a video call is linked with the chat history on the team's page.
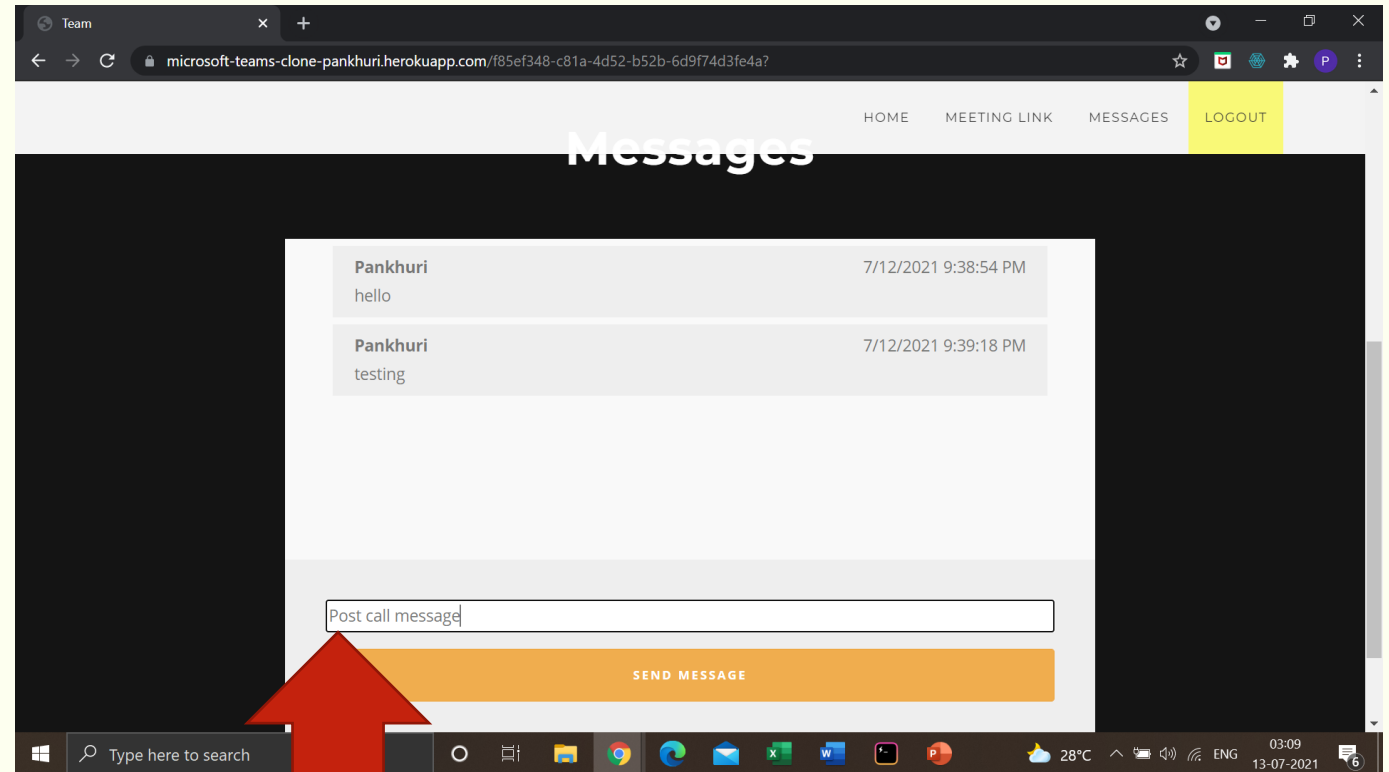
9. CONTINUE THE CONVERSATION POST VIDEO CALL

Navigate to the team's page as explained in the previous slides.

Scroll down to the "Messages" section
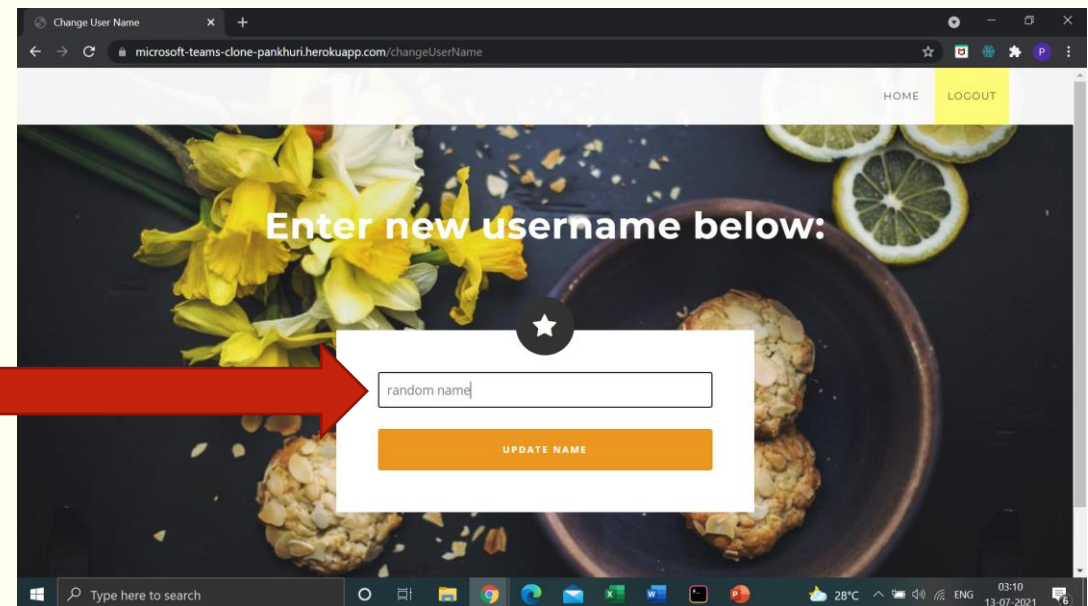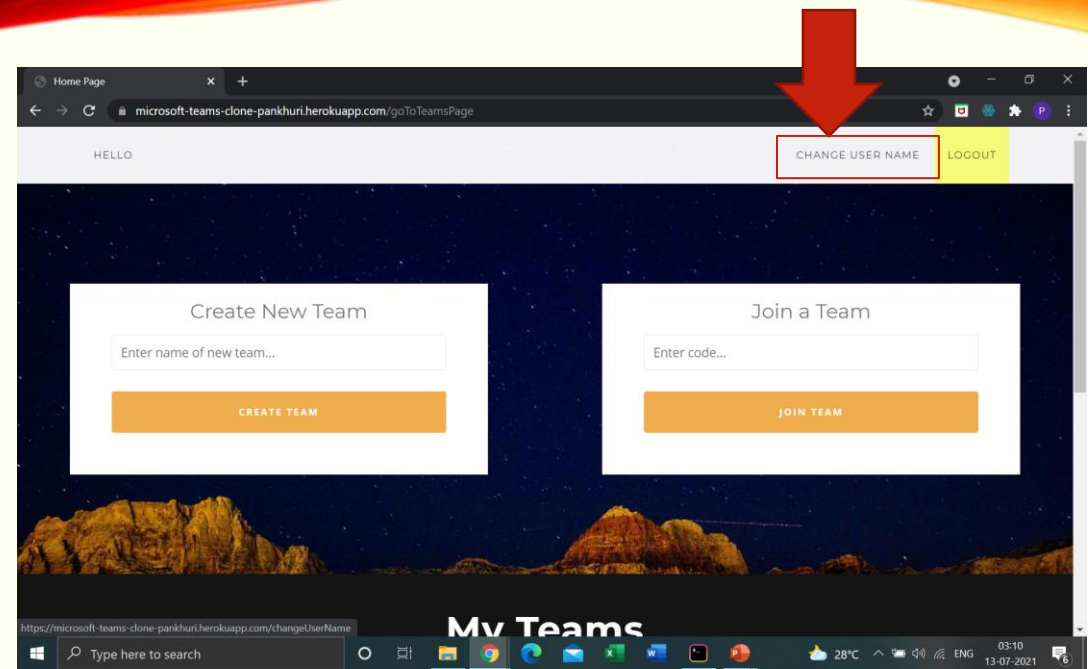
All messages shall be visible there.

10. CHANGE USER NAME

Navigate to the home page.
Click on "Change User Name" button in the header.

Enter new user name in the field.

Click "Change Username"

THANK YOU!