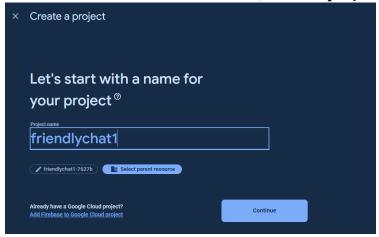
EXP 3 Integration of Cloud Services – Firebase services 15/7/24

Aim:

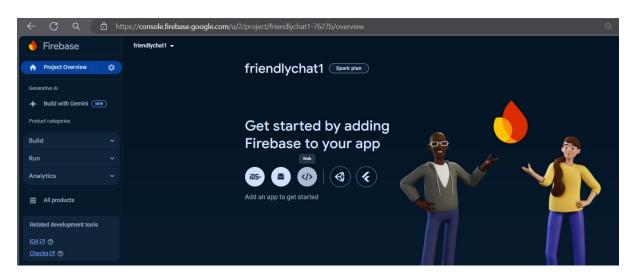
To create Firebase services: authentication, firestore database and hosting for the friendly chat application in Cloud Firebase.

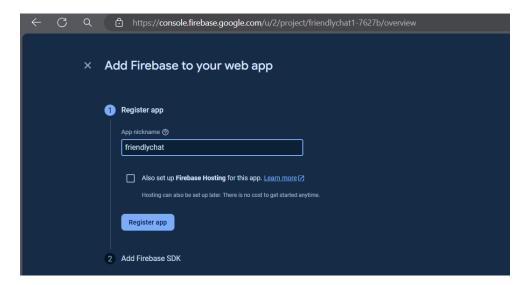
Procedure:

- 1. Get the sample app sources from https://github.com/firebase/codelab-friendlychat-web and run git commands.
- 2. Create an account in Firebase. Now, create a project named friendlychat.

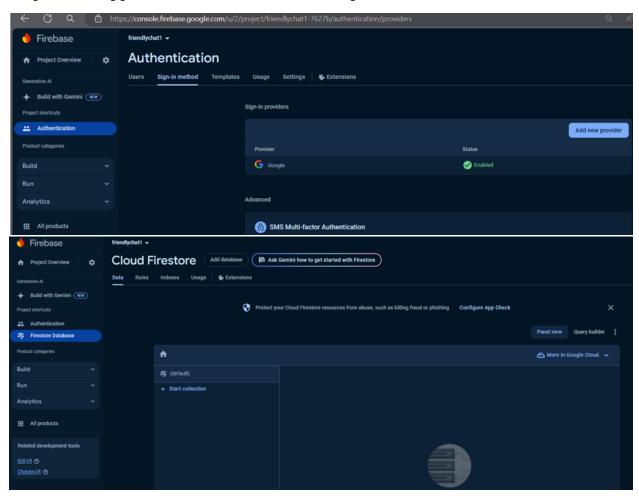


3. To create a new Firebase web app click the icon </> in the friendlychat project created and proceed.





4. Do authentication set up. Choose Google as sign-in provider. Enable it and provide support mail. Click save. Then set up cloud firestore.



5. Install the Firebase CLI and authorize the Firebase CLI with your gmail.

```
PS C:\Cloud\EXP3\codelab-friendlyeats-web> npm -g install firebase-tools@latest

changed 614 packages in 56s

67 packages are looking for funding
 run `npm fund` for details
```

```
PS C:\Cloud\EXP3\codelab-friendlyeats-web> firebase --version
13.14.2
PS C:\Cloud\EXP3\codelab-friendlyeats-web> firebase login
Already logged in as anbarasanm@student.tce.edu
```

6. Install AngularFire with the following commands.

```
PS C:\Cloud\EXP3\codelab-friendlyeats-web> npm install -g @angular/cli
added 60 packages, removed 36 packages, and changed 204 packages in 39s
49 packages are looking for funding
 run `npm fund` for details
PS C:\Cloud\EXP3\codelab-friendlyeats-web> ng add @angular/fire
Skipping installation: Package already installed
UPDATE package.json (1161 bytes)
✓ Packages installed successfully.
? What features would you like to setup? Authentication, Google Analytics,
Firestore, Realtime Database, Cloud Storage
Using firebase-tools version 13.14.2
? Which Firebase account would you like to use? anbarasanm@student.tce.edu

√ Preparing the list of your Firebase projects

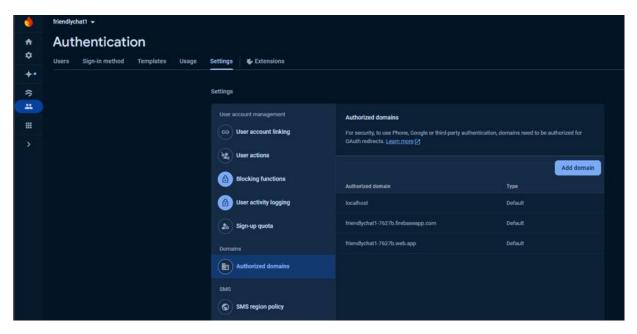
? Please select a project: friendlychat1

√ Preparing the list of your Firebase WEB apps

√ Downloading configuration data of your Firebase WEB app

UPDATE .gitignore (83 bytes)
UPDATE src/app/app.config.ts (1912 bytes)
```

7. Go to Authentication and click Settings -> Authorized domains. Make sure you have 'localhost' in the domains.



8. Do configuration of environment.ts file, setup the Authentication by adding the required functions in chat.service.ts file and configuration of chat.service.ts file.

```
TS environment.ts M X
                                        codelab-friendlychat-web-main.zip
宀
                                        codelab-friendlyeats-web > src > environments > TS environment.ts > [6] environment > \beta firebase > \beta measurementId

✓ FXP3

✓ codelab-friendlyeats-web

                                                  > node modules
           > components
           > pages
                                                    measurementId: "G-7JC5V0JKPK"

✓ services

            TS chat.service.spec.ts
Ф
                                        codelab-friendlychat-web-main.zip
                                                                             TS chat.service.ts M X
                                        codelab-friendlyeats-web > src > app > services > ™ chat.service.ts > ❤ ChatService > № user$
                                        56 export class ChatService {
77 | // Signs-in Friendly Chat.

✓ codelab-friendlyeats-web

         > functions
                                         78 login() {
         > node_modules
                                                 signInWithPopup(this.auth, this.provider).then((result) => {
                                                  const credential = GoogleAuthProvider.credentialFromResult(result);
this router payingtof('/' '***')
                                                      this.router.navigate(['/', 'chat']);
          > components
                                                      return credential;
           > pages
留

✓ services

         TS chat.service.spec.ts
            TS chat.service.ts M

    app.component.html

                                                 signOut(this.auth).then(() => {
    this.router.navigate(['/', 'login'])
    console.lng('signed out');
           TS app.component.spec.ts
           TS app.component.ts
TS app.config.ts
                                                      console.log('signed out');
                                                      console.log('sign out error: ' + error);
```

```
∠ EXP3

🔀 File Edit Selection View Go Run Terminal Help
         EXPLORER
                                                   ∨ EXP3
                                                   codelab-friendlyeats-web > src > app > services > ™ chat.service.ts > ❤ ChatService > ₯ addMessage
                                                56 export class ChatService {

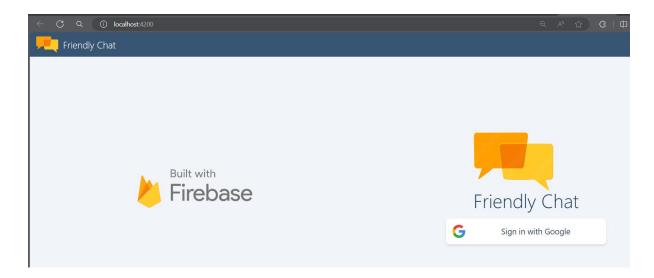
✓ codelab-friendlyeats-web

                                                   97 // Adds a text or image message to Cloud Firestore.
98 addMessage = async (
          > node modules
                                                           textMessage: string | null, imageUrl: string | null,
                                                   | Imageuri: string | null,
| 101 | ): Promise<void | DocumentReference<DocumentData>> => {
| 102 | // ignore_empty_messages
             > components
                                                            // ignore empty messages
if (!textMessage && !imageUrl) {
  console.log(
   "addMessage was called withou
   textMessage,
  imageUrl)
            > pages
           TS chat.service.spec.ts
               TS chat.service.ts
             # app.component.css
                                                                     imageUrl,
             app.component.html
              TS app.component.spec.ts
             TS app.component.ts
             TS app.config.ts
            TS app.routes.ts
> assets

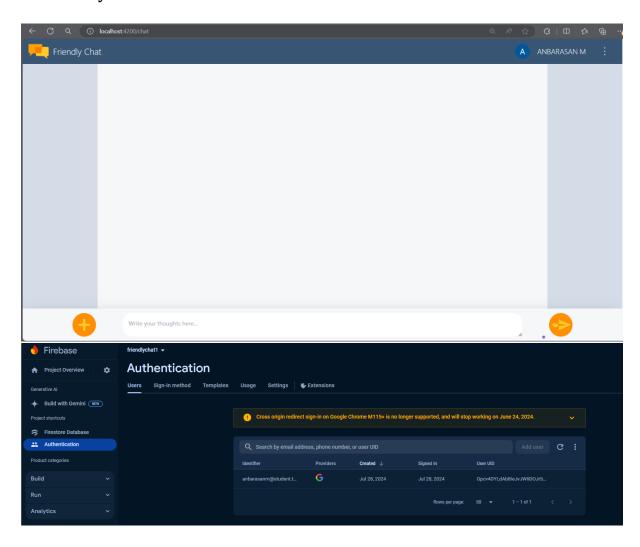
<p
                                                                console.log("addMessage requires a signed-in user");
             TS environment.ts M 116
             favicon.ico
                                                                name: this.currentUser.displayName,
             index.html
                                                                   profilePicUrl: this.currentUser.photoURL,
             TS main.ts
                                                                   timestamp: serverTimestamp(),
             # styles.css
                                                                   uid: this.currentUser?.uid,
```

9. Once the configurations are done, run the command : ng serve , to run the application on the local host.

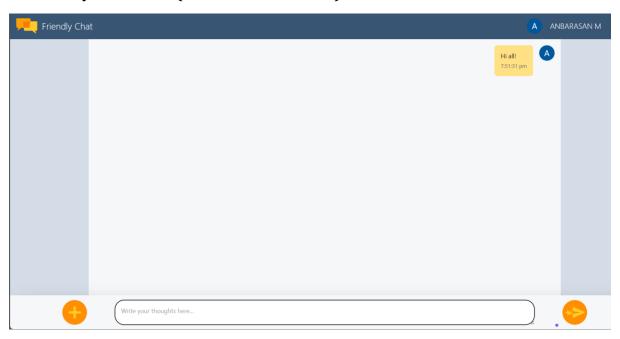
```
PS <u>C:\Cloud\EXP3\codelab-friendlyeats-web</u>> ng serve
Initial chunk files | Names
                                       Raw size
polyfills.js
                      polyfills
                                       88.12 kB
                                       24.12 kB
styles.css
                    styles
                                       13.19 kB
                    | Initial total | 125.43 kB
Application bundle generation complete. [3.262 seconds]
Watch mode enabled. Watching for file changes...
             http://localhost:4200/
  → Local:
  → press h + enter to show help
```

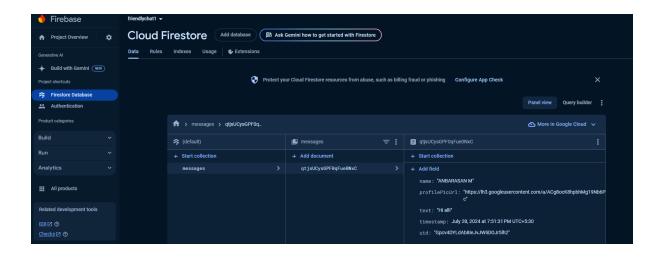


10. Click sign in with Google. Once you're signed in, your name will be visible at top right corner. At authentication tab in your firebase console, you can see this activity.



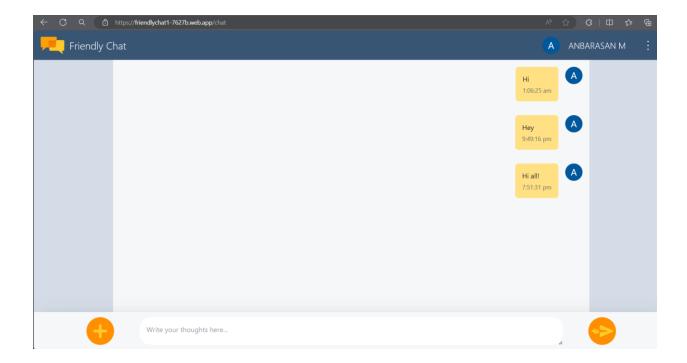
11. Now try sending a message in your app. It should be reflected in the app and in your console(in firestore database).





12. Hosting of friendly-chat web app.

Web app link: https://friendlychat1-7627b.web.app/



Result:

Thus, Firebase services Authentication, firestore database and hosting are configured for the friendly chat application in Cloud Firebase console successfully.