

Practical 6

Firebase

- Creating React App

The screenshot shows the Visual Studio Code interface with the title bar "ReactCC". The Explorer sidebar on the left shows a folder "REACTCC" containing "sampleprac". The Terminal panel at the bottom displays the command line output of the "npx create-react-app sampleprac" command, showing the process of creating a new React application.

```
PS D:\siddh\ReactCC>
PS D:\siddh\ReactCC> npx create-react-app sampleprac
Creating a new React app in D:\siddh\ReactCC\sampleprac.

Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts with cra-template...

added 1472 packages in 40s

258 packages are looking for funding
  run 'npm fund' for details

Initialized a git repository.

Installing template dependencies using npm...
added 69 packages, and changed 1 package in 6s

262 packages are looking for funding
  run 'npm fund' for details
Removing template package using npm...

removed 1 package, and audited 1541 packages in 3s
```

The screenshot shows the Visual Studio Code interface with the title bar "ReactCC". The Explorer sidebar on the left shows a folder "REACTCC" containing "sampleprac". The Terminal panel at the bottom displays the command line output of a git commit, showing the creation of a new branch and the commit message "Created sampleprac".

```
Created git commit.

Success! Created sampleprac at D:\siddh\ReactCC\sampleprac
Inside that directory, you can run several commands:

  npm start
    Starts the development server.

  npm run build
    Bundles the app into static files for production.

  npm test
    Starts the test runner.

  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!

We suggest that you begin by typing:

  cd sampleprac
  npm start

Happy hacking!
```

A screenshot of the Visual Studio Code interface. The left sidebar shows an 'EXPLORER' view with a folder named 'sampleprac'. The main area is a 'TERMINAL' window displaying the following output:

```
8 vulnerabilities (2 moderate, 6 high)
To address all issues (including breaking changes), run:
npm audit fix --force
Created git commit.

Success! Created sampleprac at D:\siddh\ReactCC\sampleprac
Inside that directory, you can run several commands:

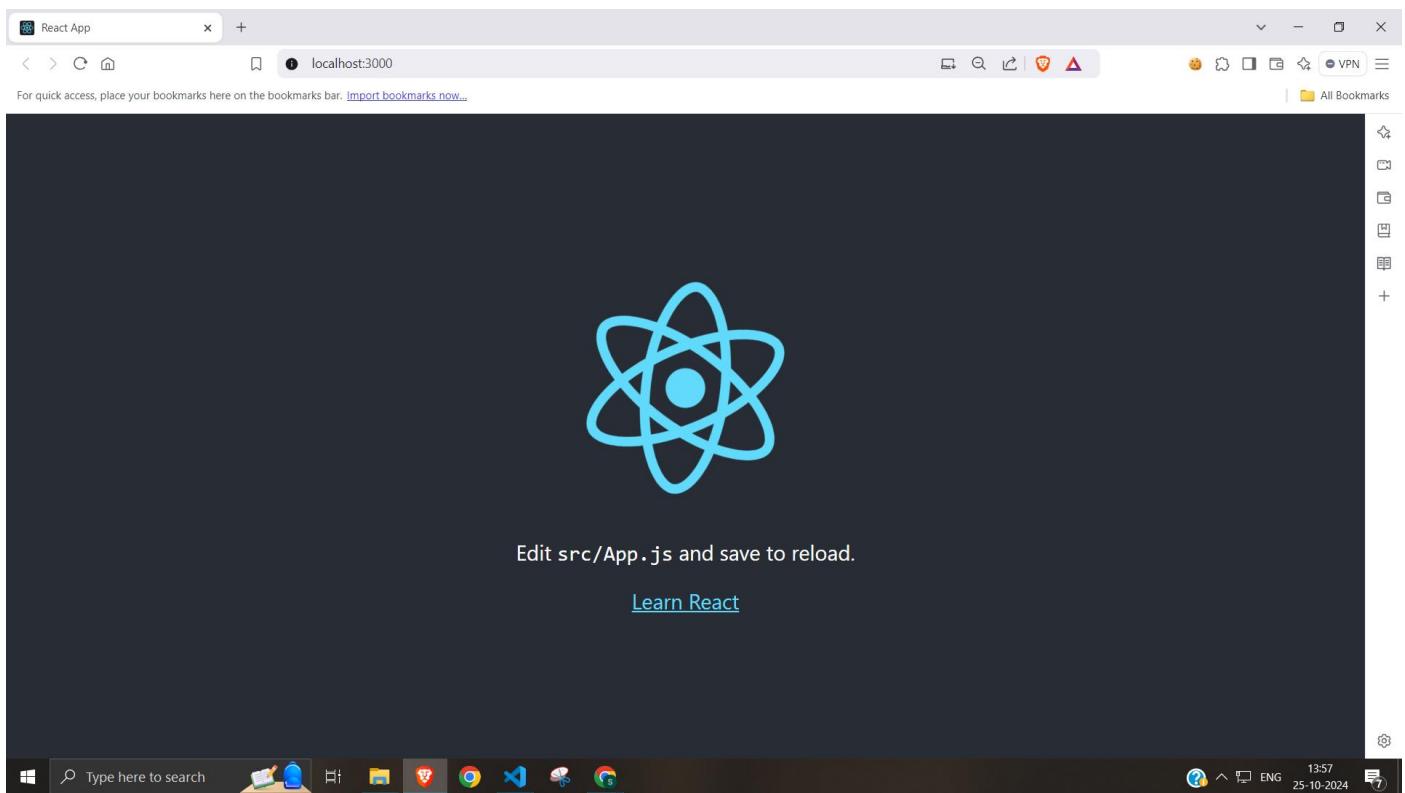
npm start
  Starts the development server.
Compiled successfully!

You can now view sampleprac in the browser.

Local: http://localhost:3000
On Your Network: http://10.105.102.100:3000

Note that the development build is not optimized.
To create a production build, use npm run build.

webpack compiled successfully!
```



```
s.com%2Fauth%2Fcloudplatformprojects.readonly%20https%3A%2F%2Fwww.googleapis.com%2Fauth%2Ffirebase%20https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloud-platform&response_type=code&state=63424587&redirect_uri=http%3A%2F%2Flocalhost%3A9005

Waiting for authentication...
+ Success! Logged in as siddhvyas683@gmail.com
PS D:\siddh\ReactCC\sampleprac> npm run build

> sampleprac@0.1.0 build
> react-scripts build

Creating an optimized production build...
One of your dependencies, babel-preset-react-app, is importing the
"@babel/plugin-proposal-private-property-in-object" package without
declaring it in its dependencies. This is currently working because
"@babel/plugin-proposal-private-property-in-object" is already in your
node_modules folder for unrelated reasons, but it may break at any time.

babel-preset-react-app is part of the create-react-app project, which
is not maintained anymore. It is thus unlikely that this bug will
ever be fixed. Add "@babel/plugin-proposal-private-property-in-object" to
your devDependencies to work around this error. This will make this message
go away.

Compiled successfully.

File sizes after gzip:
46.57 kB  build\static\js\main.30ff811a.js
1.78 kB   build\static\js\53.95ba7f600.chunk.js
515 B     build\static\css\main.f855e6bc.css

The project was built assuming it is hosted at ./.
You can control this with the homepage field in your package.json.

The build folder is ready to be deployed.
You may serve it with a static server:
  npm install -g serve
  serve -s build

Find out more about deployment here:
  https://cra.link/deployment

PS D:\siddh\ReactCC\sampleprac>
```

- Install and Configure Firebase in React App

Save the date for Firebase Demo Day '24. Learn how to build and run modern, AI-powered apps users love. [Learn more.](#)

Make your app 🌟⚙️ the best it can be with Firebase and generative AI

Build & run modern, AI-powered experiences users love with Firebase, a platform designed to support you throughout your app development journey. Backed by Google and trusted by millions of businesses around the world.

x Create a project

Let's start with a name for your project [?]

Project name
sampleprac

I accept the [Firebase terms](#).

I confirm that I will use Firebase exclusively for purposes relating to my trade, business, craft or profession.

Already have a Google Cloud project? [Add Firebase to Google Cloud project](#)

Create project – Firebase console

console.firebaseio.google.com/?_gl=1*1swjjat*_ga*Mjc1Njc1Mzc2LjE3Mjk4NDQyMjM.*_ga_CW55HF8NVT*MTcyOTg0NDIyMy4xLjEuMTcyOTg0NDkwOS40MC4wLjA.&pli=1

x Create a project

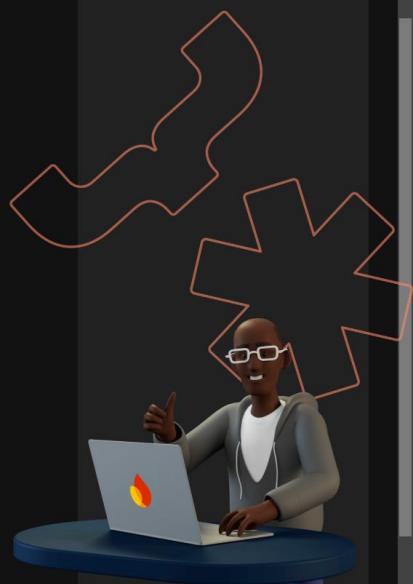
Google Analytics for your Firebase project

Google Analytics is a free and unlimited analytics solution that enables targeting, reporting and more in Firebase Crashlytics, Cloud Messaging, in-app messaging, Remote Config, A/B Testing and Cloud Functions.

Google Analytics enables:

- ✗ A/B testing ⓘ
- ✗ User-segmentation and targeting ⓘ
- ✗ Breadcrumb logs in Crashlytics ⓘ
- ✗ Event-based Cloud Functions triggers ⓘ
- ✗ Free unlimited reporting ⓘ

Enable Google Analytics for this project
Recommended



14:03
25-10-2024

Create project – Firebase console

console.firebaseio.google.com/?_gl=1*1swjjat*_ga*Mjc1Njc1Mzc2LjE3Mjk4NDQyMjM.*_ga_CW55HF8NVT*MTcyOTg0NDIyMy4xLjEuMTcyOTg0NDkwOS40MC4wLjA.&pli=1



sampleprac

✓ Your Firebase project is ready

Continue



14:07
25-10-2024

The screenshot shows the Firebase Project Overview page for a project named 'sampleprac'. The left sidebar includes sections for Generative AI, Build with Gemini, Product categories, Build, Run, Analytics, All products, and Related development tools (IDX, Checks). The main area features a 'Get started by adding Firebase to your app' section with a 'Spark plan' button and a 'Getting started? Tell Gemini about your project' link. It also displays icons for iOS+, Android, React Native, and other development tools. A 3D rendering of two people interacting with a large yellow and red flame-like icon is shown. Below this, there's a 'Experiment with a Gemini sample app' section with a 'Try it now' button and a blue star icon.

The screenshot shows the Visual Studio Code (VS Code) interface. The left sidebar has an Explorer view showing 'OPEN EDITORS' and a folder named 'REACTCC' containing 'sampleprac'. The center pane displays the 'Welcome' screen for the 'sampleprac' project. It includes sections for 'Start' (with options like New File, Open File, Open Folder, Clone Git Repository, and Connect to...), 'Walkthroughs' (with links to 'Get Started with GitLens' and 'Get Started with Java Development'), and 'Recent' files (security, college, programs, SoundCircle, Soundcircle.Rakend, C:\Users\Admin). The bottom terminal window shows the command 'npm install firebase' being run, with the output 'Compiled successfully!' and instructions to view the app at 'http://localhost:3000' or 'http://10.105.102.100:3000'. The status bar at the bottom indicates the file is 'powershell - sampleprac' and shows the date and time as 14:09 25-10-2024.

VS Code interface showing a terminal window with the following output:

```
webpack compiled successfully
? "Terminate batch job (Y/N)? y
PS D:\siddh\ReactCC\sampleprac> npm install firebase
added 63 packages, and audited 1604 packages in 14s
262 packages are looking for funding
  run 'npm fund' for details
  8 vulnerabilities (2 moderate, 6 high)

To address all issues (including breaking changes), run:
  npm audit fix --force

Run 'npm audit' for details.
PS D:\siddh\ReactCC\sampleprac> npm install -g firebase-tools
added 96 packages, removed 101 packages, and changed 545 packages in 38s
68 packages are looking for funding
  run 'npm fund' for details
  ○ PS D:\siddh\ReactCC\sampleprac>
```

The terminal shows the execution of `npm install firebase`, which installs the Firebase package and its dependencies. It also installs the `firebase-tools` globally. The output includes audit results and a prompt to run `npm audit fix --force` to address vulnerabilities.

VS Code interface showing a terminal window with the following output:

```
added 63 packages, and audited 1604 packages in 14s
262 packages are looking for funding
  run 'npm fund' for details
  8 vulnerabilities (2 moderate, 6 high)

To address all issues (including breaking changes), run:
  npm audit fix --force

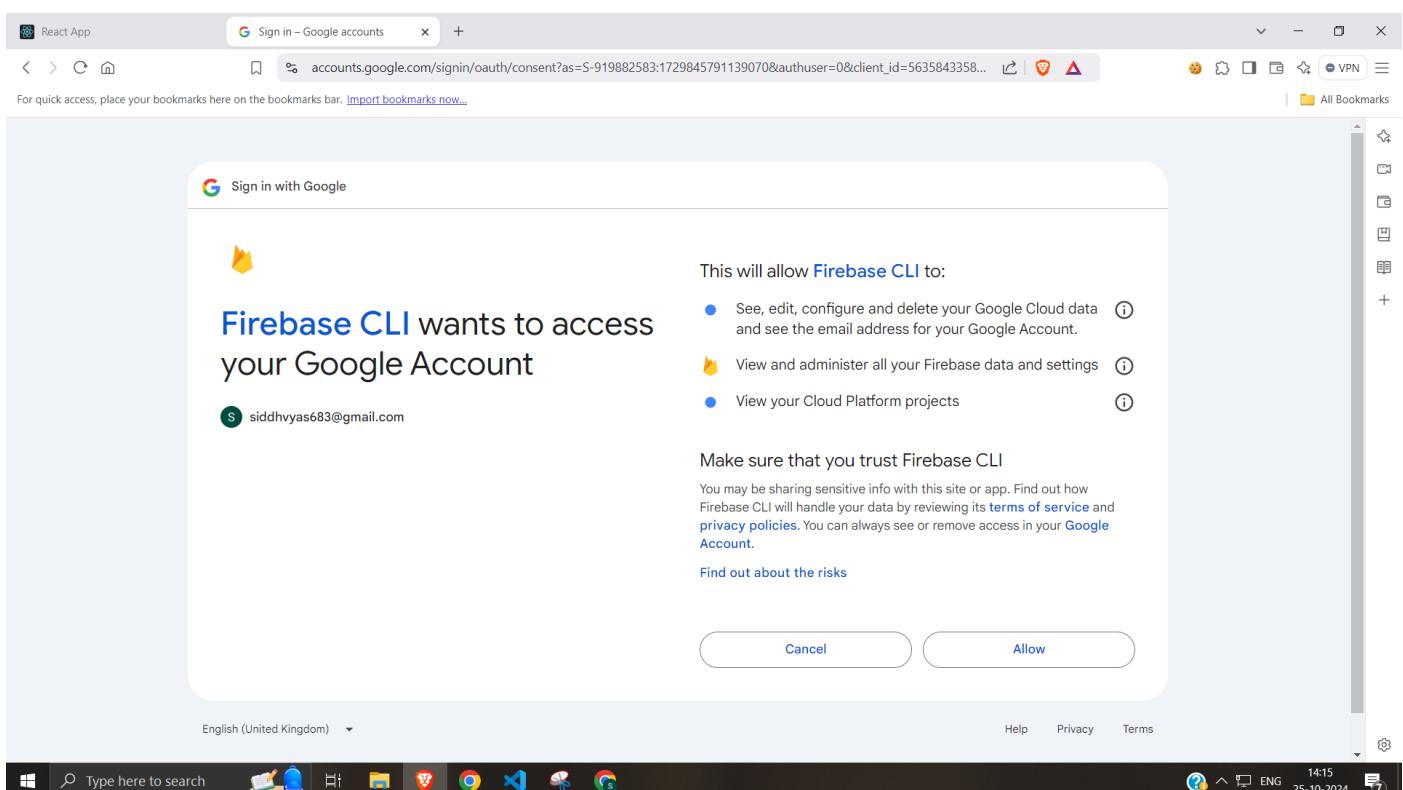
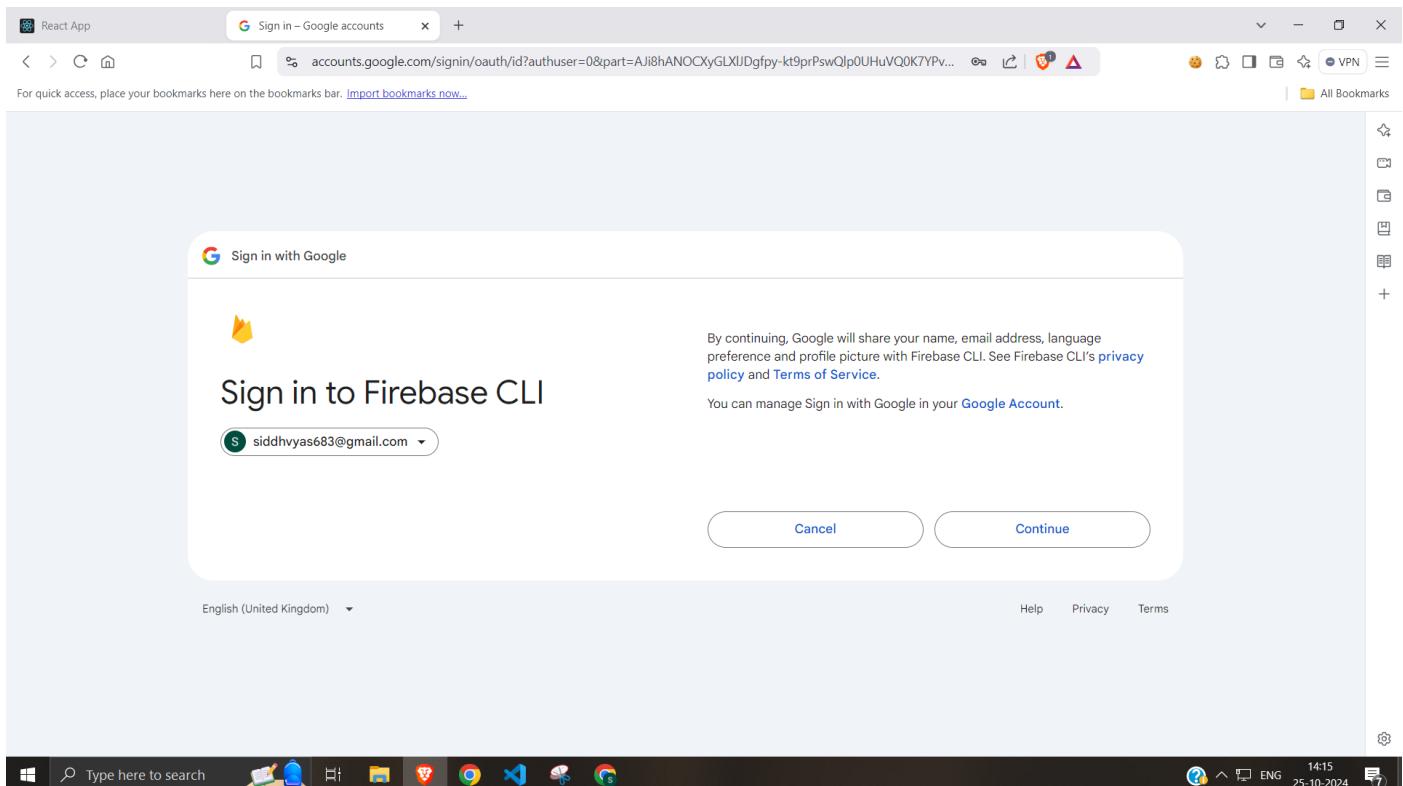
Run 'npm audit' for details.
PS D:\siddh\ReactCC\sampleprac> npm install -g firebase-tools
added 96 packages, removed 101 packages, and changed 545 packages in 38s
68 packages are looking for funding
  run 'npm fund' for details
  ○ PS D:\siddh\ReactCC\sampleprac> firebase login
Already logged in as jeebh.joshi@gmail.com
  ○ PS D:\siddh\ReactCC\sampleprac> firebase logout
+ Logged out from jeebh.joshi@gmail.com
○ PS D:\siddh\ReactCC\sampleprac> firebase login
  i Firebase optionally collects CLI and Emulator Suite usage and error reporting information to help improve our products. Data is collected in accordance with Google's privacy policy (https://policies.google.com/privacy) and is not used to identify you.

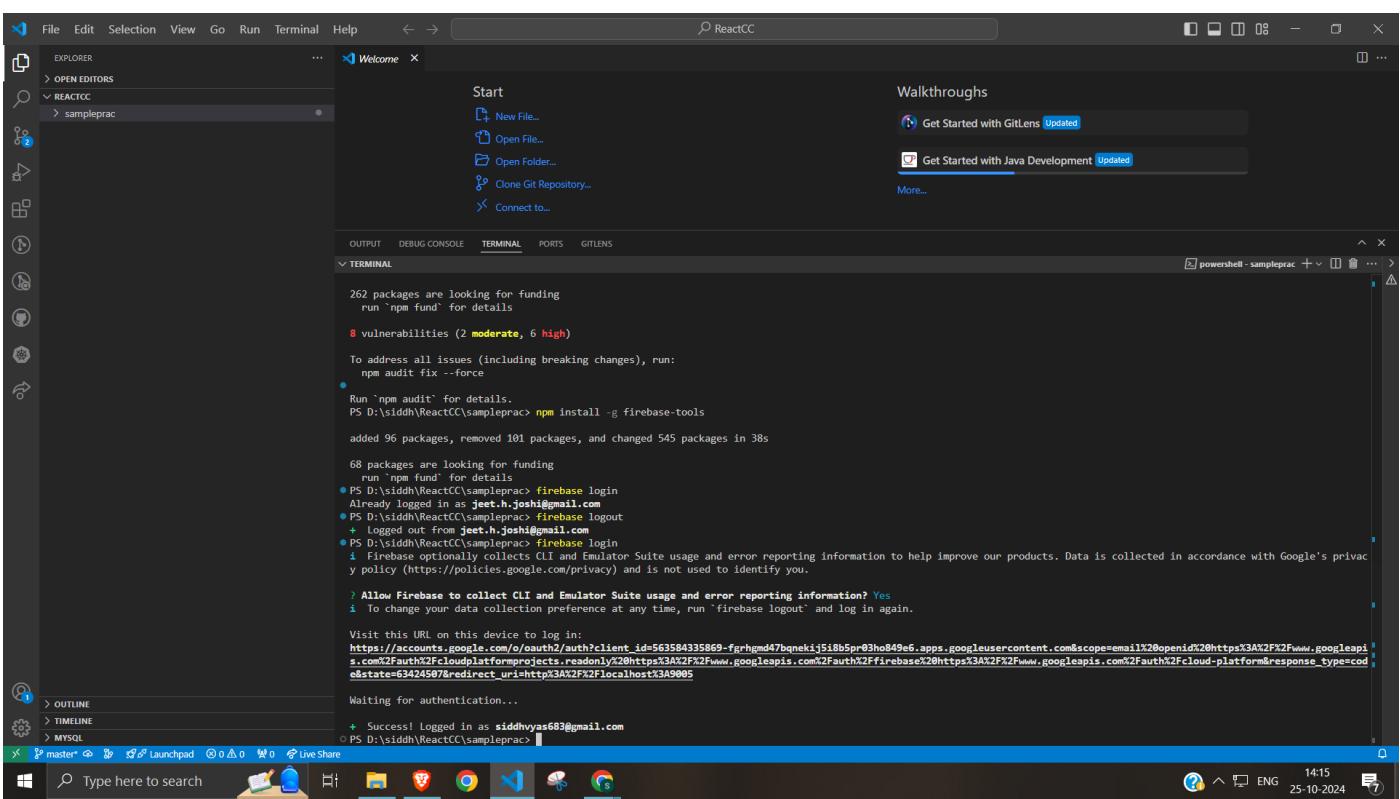
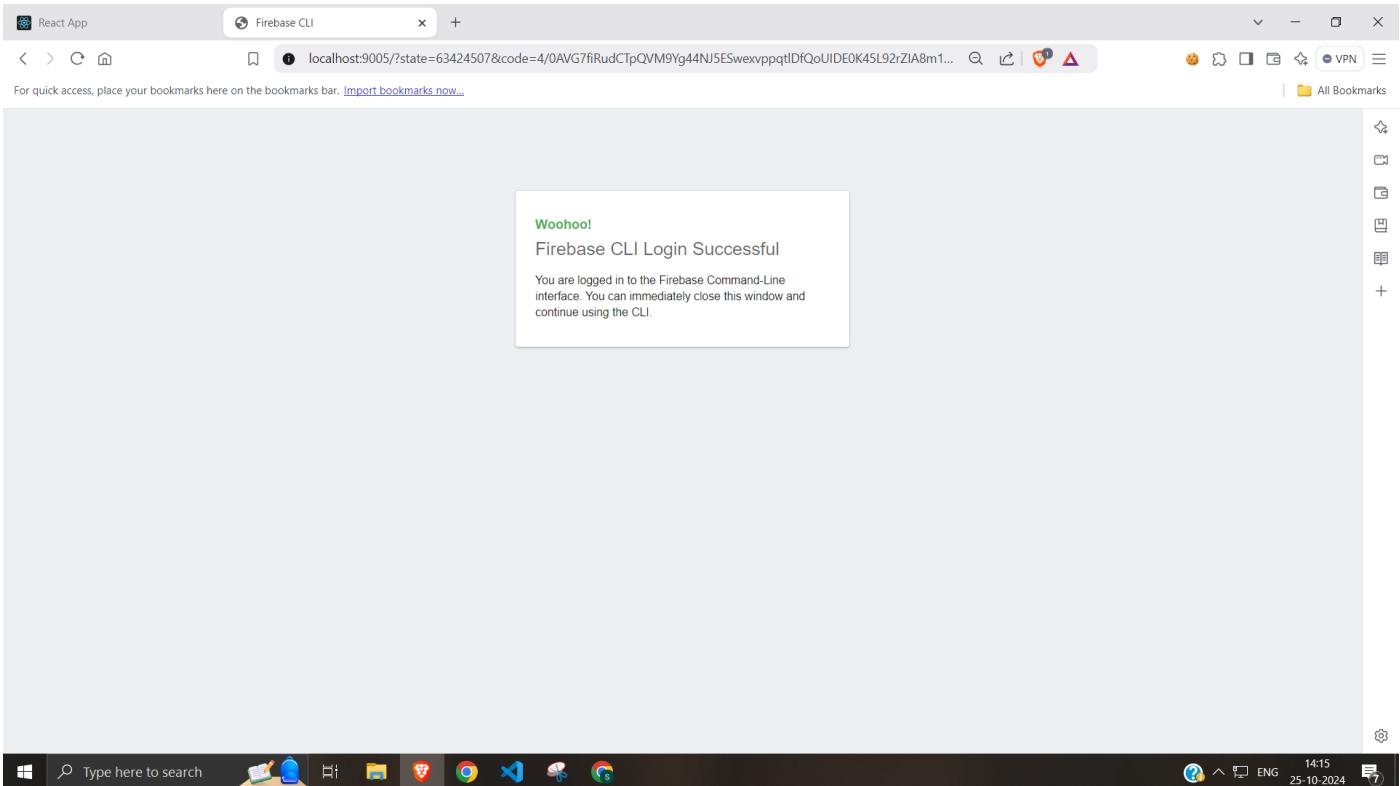
? Allow Firebase to collect CLI and Emulator Suite usage and error reporting information? Yes
  i To change your data collection preference at any time, run `firebase logout` and log in again.

Visit this URL on this device to log in:
https://accounts.google.com/o/oauth2/auth?client\_id=563584335869-fgrhgmd47bqnekijs518b5pr03ho849e6.apps.googleusercontent.com&scope=email%20openid%20https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloudplatfor...&state=63424507&redirect\_uri=http%3A%2F%2Flocalhost%3A9005

Waiting for authentication...
```

The terminal shows the execution of `firebase login`. It asks for permission to collect usage and error reporting information. It then provides a URL for authentication. The output shows the user is already logged in and provides instructions for logging out.





- Configure Firebase with GitHub Repository

```

Error: Failed to make request to https://www.gstatic.com/firebasejs/releases.json
PS D:\siddh\ReactCC\sampleprac> ^
PS D:\siddh\ReactCC\sampleprac> ^
PS D:\siddh\ReactCC\sampleprac> firebase init
=====
You're about to initialize a Firebase project in this directory:

D:\siddh\ReactCC\sampleprac

Are you ready to proceed? Yes
Which Firebase features do you want to set up for this directory? Press Space to select features, then Enter to confirm your choices. Hosting: Configure files for Firebase Hosting and (optionally) set up GitHub Action deploys
== Project Setup

First, let's associate this project directory with a Firebase project.
You can create multiple project aliases by running firebase use --add,
but for now we'll just set up a default project.

Please select an option: Use an existing project
Select a default Firebase project for this directory: sampleprac-62437 (sampleprac)
4. Using project sampleprac-62437 (sampleprac)

== Hosting Setup

Your public directory is the folder (relative to your project directory) that
will contain Hosting assets to be uploaded with firebase deploy. If you
have a build process for your assets, use your build's output directory.

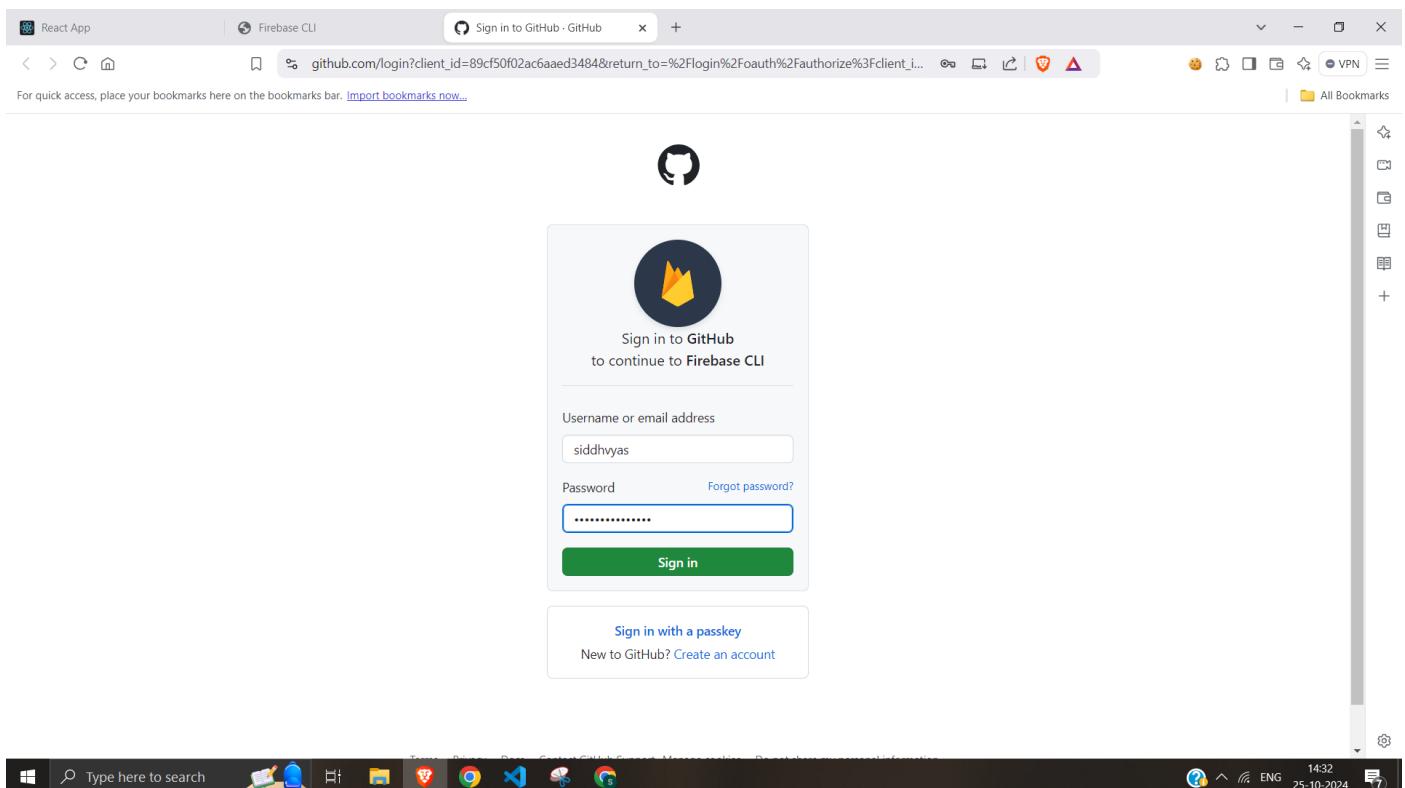
What do you want to use as your public directory? build
Configure as a single-page app (rewrite all urls to /index.html)? Yes
Set up automatic builds and deploys with GitHub? Yes
File build/index.html already exists. Overwrite? No
Skipping write of build/index.html

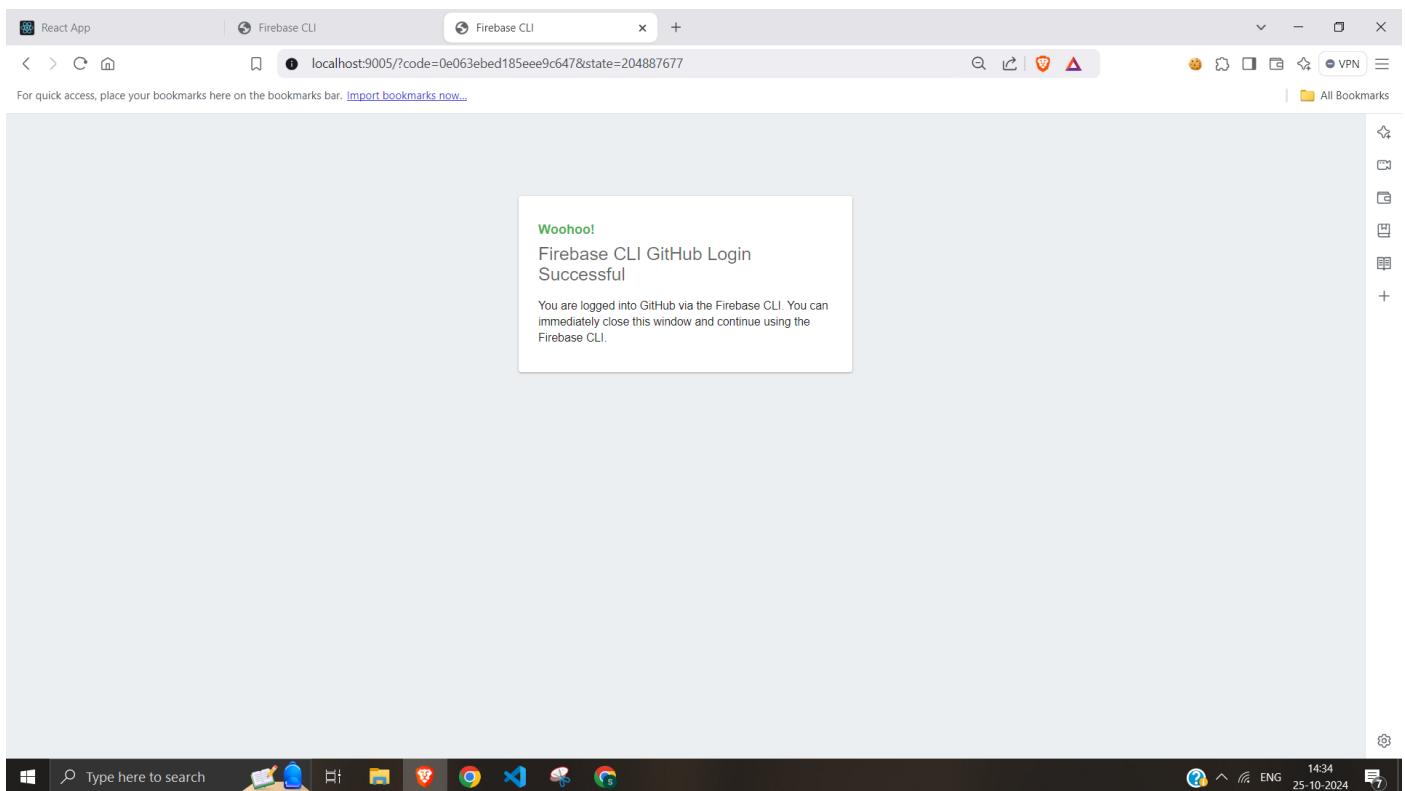
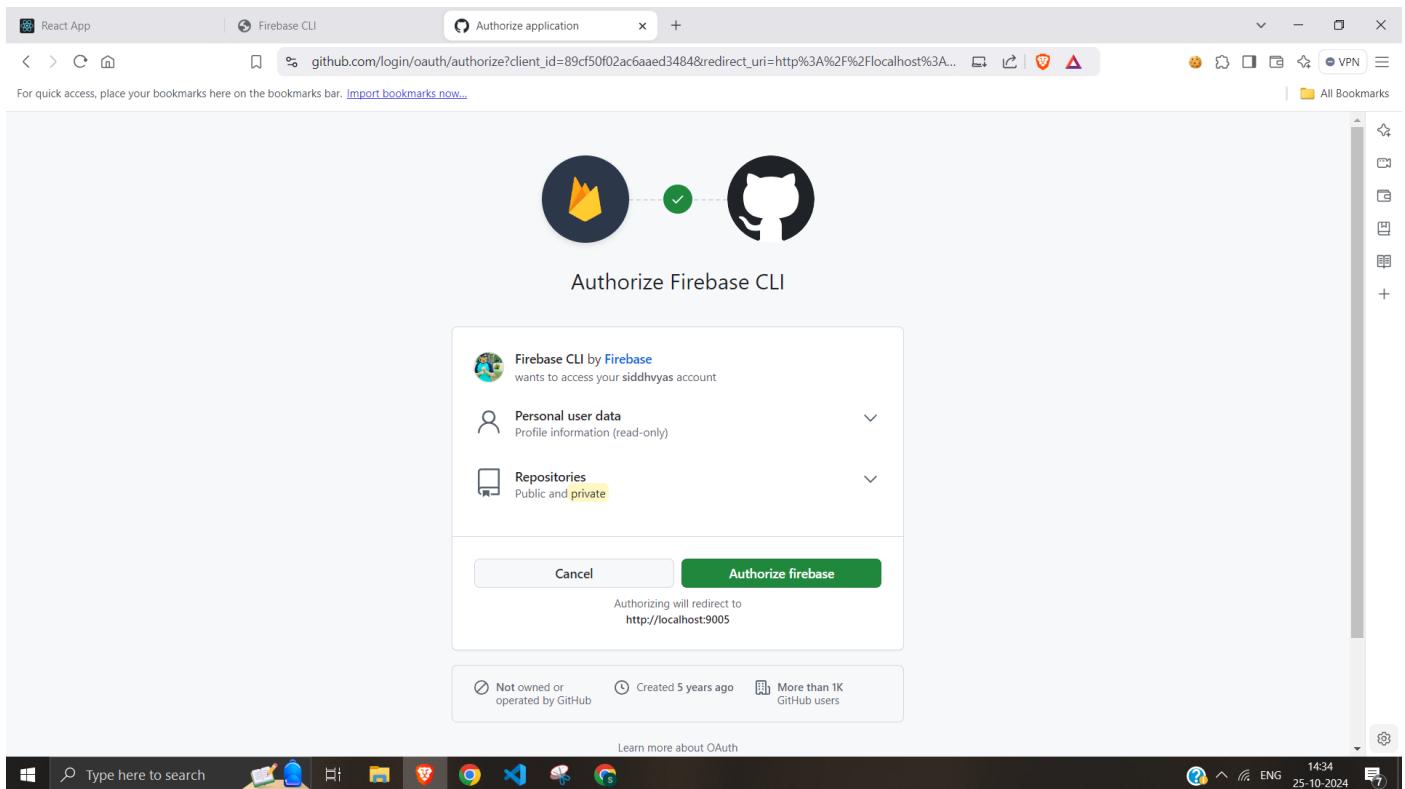
i Detected a .git folder at D:\siddh\ReactCC\sampleprac
i Authorizing with GitHub to upload your service account to a GitHub repository's secrets store.

Visit this URL on this device to log in:
https://github.com/login/oauth/authorize?client_id=89cf50f02ac6aaed3484&state=204887677&redirect_uri=http%3A%2F%2Flocalhost%3A9005%2Fpublic_repo

Waiting for authentication...

```





```

PS D:\siddh\ReactCC\sampleprac> firebase init
PS D:\siddh\ReactCC\sampleprac> firebase init

You're about to initialize a Firebase project in this directory:

D:\siddh\ReactCC\sampleprac

Are you ready to proceed? Yes
Which Firebase features do you want to set up for this directory? Press Space to select features, then Enter to confirm your choices. Hosting: Configure files for Firebase Hosting and (optionally) set up GitHub Action deploys

== Project Setup

First, let's associate this project directory with a Firebase project.
You can create multiple project aliases by running firebase use --add,
but for now we'll just set up a default project.

Please select an option: Use an existing project
Select a default Firebase project for this directory: sampleprac-62437 (sampleprac)
Using project sampleprac-62437 (sampleprac)

== Hosting Setup

Your public directory is the folder (relative to your project directory) that
will contain Hosting assets to be uploaded with firebase deploy. If you
have a build process for your assets, use your build's output directory.

What do you want to use as your public directory? build
Configure as a single-page app (rewrite all urls to /index.html)? Yes
Set up automatic builds and deploys with GitHub? Yes
File build/index.html already exists. Overwrite? No
Skipping write of build/index.html

Detected a .git folder at D:\siddh\ReactCC\sampleprac
Authorizing with GitHub to upload your service account to a GitHub repository's secrets store.

Visit this URL on this device to log in:
https://github.com/login/oauth/authorize?client_id=89cf50f02ac6aaed3404&state=204887677&redirect_uri=http%3A%2F%2Flocalhost%3A9005&scope=read%3Auser%20repo%20public_repo

Waiting for authentication...
Success! Logged into GitHub as siddhvyas
For which GitHub repository would you like to set up a GitHub workflow? (format: user/repository)

```

New repository

github.com/new

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Required fields are marked with an asterisk (*)

Owner *	Repository name *
siddhvyas	/ sampleprac
sampleprac is available.	

Great repository names are short and memorable. Need inspiration? How about [verbose-barnacle](#) ?

Description (optional)

Public
Anyone on the internet can see this repository. You choose who can commit.

Private
You choose who can see and commit to this repository.

Initialize this repository with:

Add a README file
This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore

Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)

You're about to initialize a Firebase project in this directory:
D:\siddh\ReactCC\sampleprac

: Are you ready to proceed? Yes
: Which Firebase features do you want to set up for this directory? Press Space to select features, then Enter to confirm your choices. Hosting: Configure files for Firebase Hosting and (optionally) set up GitHub Action deploys

*** Project Setup

First, let's associate this project directory with a Firebase project.
You can create multiple project aliases by running `firebase use --add`,
but for now we'll just set up a default project.

: Please select an option: Use an existing project
: Select a default Firebase project for this directory: sampleprac-62437 (sampleprac)
i Using project sampleprac-62437 (sampleprac)

*** Hosting Setup

Your **public** directory is the folder (relative to your project directory) that
will contain Hosting assets to be uploaded with `firebase deploy`. If you
have a build process for your assets, use your build's output directory.

: What do you want to use as your public directory? build
: Configure as a single-page app (rewrite all urls to /index.html)? Yes
: Set up automatic builds and deploys with GitHub? Yes
: File build/index.html already exists. Overwrite? No
i Skipping write of build/index.html

i Detected a .git folder at D:\siddh\ReactCC\sampleprac
i Authorizing with GitHub to upload your service account to a GitHub repository's secrets store.

Visit this URL on this device to log in:
https://github.com/login/oauth/authorize?client_id=89cf50f02ac6aaed3484&state=204887677&redirect_uri=http%3A%2F%2Flocalhost%3A9005%2F&scope=read%3Auser%20repo%20public_repo

Waiting for authentication...

+ Success! Logged into GitHub as siddhyas

: For which GitHub repository would you like to set up a GitHub workflow? (format: user/repository) siddhyas/sampleprac

+ Created service account `github-action-878372661` with Firebase Hosting admin permissions.
+ Uploaded service account JSON to GitHub as secret `FIREBASE_SERVICE_ACCOUNT_SAMPLEPRAC_62437`.
i You can manage your secrets at <https://github.com/siddhyas/sampleprac/settings/secrets>.

: Set up the workflow to run a build script before every deploy? Yes
: What script should be run before every deploy? (npm ci & npm run build) |

Type here to search Live Share Launchpad MySQL Outline Timeline MySQL File Edit Selection View Go Run Terminal Help ReactCC OUTPUT DEBUG CONSOLE TERMINAL PORTS GITLENS node - sampleprac 1450 ENG 25-10-2024

Using project sampleprac-62437 (sampleprac)

*** Hosting Setup

Your **public** directory is the folder (relative to your project directory) that
will contain Hosting assets to be uploaded with `firebase deploy`. If you
have a build process for your assets, use your build's output directory.

: What do you want to use as your public directory? build
: Configure as a single-page app (rewrite all urls to /index.html)? Yes
: Set up automatic builds and deploys with GitHub? Yes
: File build/index.html already exists. Overwrite? No
i Skipping write of build/index.html

i Detected a .git folder at D:\siddh\ReactCC\sampleprac
i Authorizing with GitHub to upload your service account to a GitHub repository's secrets store.

Visit this URL on this device to log in:
https://github.com/login/oauth/authorize?client_id=89cf50f02ac6aaed3484&state=204887677&redirect_uri=http%3A%2F%2Flocalhost%3A9005%2F&scope=read%3Auser%20repo%20public_repo

Waiting for authentication...

+ Success! Logged into GitHub as siddhyas

: For which GitHub repository would you like to set up a GitHub workflow? (format: user/repository) siddhyas/sampleprac

+ Created service account `github-action-878372661` with Firebase Hosting admin permissions.
+ Uploaded service account JSON to GitHub as secret `FIREBASE_SERVICE_ACCOUNT_SAMPLEPRAC_62437`.
i You can manage your secrets at <https://github.com/siddhyas/sampleprac/settings/secrets>.

: Set up the workflow to run a build script before every deploy? Yes
: What script should be run before every deploy? (npm ci & npm run build) npm run build
: What script should be run before every deploy? npm ci & npm run build

+ Created workflow file D:\siddh\ReactCC\sampleprac\.github\workflows\firebase-hosting-pull-request.yml
+ Set up automatic deployment to your site's live channel when a PR is merged? Yes
: What is the name of the GitHub branch associated with your site's live channel? main

+ Created workflow file D:\siddh\ReactCC\sampleprac\.github\workflows\firebase-hosting-merge.yml

i Action required: Visit this URL to revoke authorization for the Firebase CLI GitHub OAuth App:
<https://github.com/settings/connections/applications/89cf50f02ac6aaed3484>
i Action required: Push any new workflow file(s) to your repo

i Writing configuration info to `firebase.json`...
i Writing project information to `.firebaserc`...

+ Firebase initialization complete!
PS D:\siddh\ReactCC\sampleprac> |

Type here to search Live Share Launchpad MySQL Outline Timeline MySQL File Edit Selection View Go Run Terminal Help ReactCC OUTPUT DEBUG CONSOLE TERMINAL PORTS GITLENS powershell - sampleprac 1452 ENG 25-10-2024

The screenshot shows a Windows desktop environment with a Visual Studio Code (VS Code) window open. The VS Code interface includes:

- File**, **Edit**, **Selection**, **View**, **Go**, **Run**, **Terminal**, **Help** menu.
- OUTPUT**, **DEBUG CONSOLE**, **TERMINAL** (selected), **PORTS**, **GITLENS** tabs.
- EXPLORER** sidebar with **OPEN EDITORS** and **REACTCC** folder containing **> sampleprac**.
- TERMINAL** pane showing the following GitHub workflow configuration and deployment logs:

```
Visit this URL on this device to log in:  
https://github.com/login/oauth/authorize?client_id=89cf50f02ac6aaed3484&state=204887677&redirect_uri=http%3A%2F%2Flocalhost%3A9005&scope=read%3Auser%2Brepo%2Bpublic_repo  
Waiting for authentication...  
+ Success! Logged into Github as siddhvyas  
: For which GitHub repository would you like to set up a GitHub workflow? (format: user/repository) siddhvyas/sampleprac  
+ Created service account github-action-873372661 with Firebase Hosting admin permissions.  
+ Uploaded service account JSON to Github secret FIREBASE_SERVICE_ACCOUNT_SAMPLEPRAC_62437.  
? You can manage your secrets at https://github.com/siddhvyas/sampleprac/settings/secrets.  
: Set up the workflow to run a build script before every deploy? Yes  
What script should be run before every deploy? (npm ci && npm run build) npm run build  
What script should be run before every deploy? npm ci && npm run build  
+ Created workflow file D:\siddh\ReactCC\sampleprac\.github\workflows\firebase-hosting-pull-request.yml  
+ Set up automatic deployment to your site's live channel when a PR is merged? Yes  
What is the name of the GitHub branch associated with your site's live channel? main  
+ Created workflow file D:\siddh\ReactCC\sampleprac\.github\workflows\firebase-hosting-merge.yml  
i Action required: Visit this URL to revoke authorization for the Firebase CLI GitHub OAuth App:  
https://github.com/settings/connections/applications/89cf50f02ac6aaed3484  
i Action required: Push any new workflow file(s) to your repo  
i Writing configuration info to firebase.json...  
i Writing project information to .firebaserc...  
+ Firebase initialization complete!  
PS D:\siddh\ReactCC\sampleprac> firebase deploy  
*** Deploying to 'sampleprac-62437'...  
i deploying hosting  
i hosting[sampleprac-62437]: beginning deploy...  
i hosting[sampleprac-62437]: found 15 files in build  
+ hosting[sampleprac-62437]: file upload complete  
i hosting[sampleprac-62437]: finalizing version...  
+ hosting[sampleprac-62437]: version finalized  
i hosting[sampleprac-62437]: releasing new version...  
+ hosting[sampleprac-62437]: release complete  
+ Deploy complete!
```

Project Console: <https://console.firebaseio.google.com/project/sampleprac-62437/overview>
Hosting URL: <https://sampleprac-62437.web.app>

PS D:\siddh\ReactCC\sampleprac>

At the bottom of the screen, the taskbar shows:

- Type here to search
- Windows Start button
- Icons for File Explorer, File History, Task View, Taskbar settings, and Live Share
- System tray icons for battery, signal, volume, and date/time (14:54, 25-10-2024)