Using the [Firebase CLI](https://firebase.google.com/docs/cli), you deploy files from local directories on your computer to the Hosting servers.

Installation & Setup in JavaScript ：<https://firebase.google.com/docs/database/web/start>

1. Prerequisites: Add and configure the Firebase JavaScript client SDK into your app.

Step 1: Create a Firebase project and register your app

Google firebase automatically add information to your app registrations like the following screenshots.

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

If you've already added an app to your Firebase project, click Add app to display the platform options.

Graphical user interface, text, application

Description automatically generated

Step 2: Install the SDK and initialize Firebase

MacBook pro

Terminal command- install firebase using npm

~/iot$ npm install firebase //successful

II. Firebase hosting

Using the [Firebase CLI](https://firebase.google.com/docs/cli), you deploy files from local directories on your computer to google Hosting servers. <https://firebase.google.com/docs/hosting>

Implementation path 1: install the firebase CLI;

For windows system, there are only 2 options:

1. **standalone binary-**Download the standalone binary for the CLI. Then, you can access the executable to open a shell where you can run the firebase command. For developers not using or unfamiliar with [Node.js](https://www.nodejs.org/)
2. Use npm (the Node Package Manager) to install the CLI and enable the globally available firebase command. For developers using [Node.js](https://www.nodejs.org/)

For macOS or Linux system, there are another option other than the above 2 options. This is the option I am using for the MacBook.

1. **automatic install script -** Run a single command that automatically detects your operating system, downloads the latest CLI release, then enables the globally available firebase command. For developers not using or unfamiliar with [Node.js](https://www.nodejs.org/), Automated deploys in a [CI/CD](https://en.wikipedia.org/wiki/CI/CD) environment

To install the Firebase CLI using the automatic install script, follow these steps:

1. Run the following cURL command:

$ curl -sL https://firebase.tools | bash

note: the terminal will ask user to enter the computer’s password. After password entered, start downloading from google.

[firebase-tools@9.23.0](mailto:firebase-tools@9.23.0) is now installed

all done

1. Login and test the firebase CLI:

Log into Firebase using your Google account by running the following command; This command connects your local machine to Firebase and grants you access to your Firebase projects.

$ firebase login

note: the terminal opens a web page that connects to google account for authentication, and after you approve the account connection, it will goes to localhost on your machine: hocalhost:9005/?state=……, which is a page show: firebase CLI login successful.

1. Initialize a firebase project:

Many common tasks performed using the CLI, such as deploying to a Firebase project, require a **project directory**. You establish a project directory using the firebase init command. A project directory is usually the same directory as your source control root, and after running firebase init, the directory contains a [firebase.json](https://firebase.google.com/docs/cli" \l "the_firebasejson_file) configuration file.

To initialize a new Firebase project, run the following command from within your app's directory:

$ firebase init

At the end of initialization, Firebase automatically creates the following two files at the root of your local app directory:

1. The firebase.json file is required to deploy assets with the Firebase CLI because it specifies which files and settings from your project directory are deployed to your Firebase project.
2. A .firebaserc file that stores your project aliases. You can associate multiple Firebase projects with the same project directory.
3. Serve and test your Firebase project locally

Run any of the following commands from your project directory to emulate your project using local HTTP functions. To emulate HTTP functions and hosting for testing on local URLs:

Note: must run the server when test the web app, then open app at localhost:5000

$ firebase serve

Graphical user interface, application

Description automatically generated