

Angular Application Deployment using Firebase

Firestore provides 5 types of services as

1. Realtime Database :

- Firestore provides a realtime database and backend as a service.

2. Authentication :

- Firestore Authentication provides backend services, easy-to-use SDKs, and ready-made UI libraries to authenticate users to your app.

3. Firestore Cloud Messaging :

- Firestore Cloud Messaging (FCM) provides a reliable and battery-efficient connection between your server and devices that allows you to deliver and receive messages and notifications on iOS, Android, and the web at no cost.

4. Firestore Storage :

- Firestore Storage provides secure file uploads and downloads for Firestore apps, regardless of network quality.
- The developer can use it to store images, audio, video, or other user-generated content. Firestore Storage is backed by Google Cloud Storage.

5. Firestore Hosting :

- Firestore Hosting is a static and dynamic web hosting service that launched on May 13, 2014.
- It supports hosting static files such as CSS, HTML, JavaScript and other files, as well as dynamic Node.js support through Cloud Functions.
- The service delivers files over a content delivery network (CDN) through HTTP Secure (HTTPS) and Secure Sockets Layer encryption (SSL).

From the above services we are going to use Firestore Hosting service for deployment.

To deploy Angular application on firebase we have to follow below steps

Step 1 : Go to the firebase site and login with our google account

<https://console.firebase.google.com/>

Step 2 : Click on Add project button and provide name of your project.

Ex: MarvellousFirebase

Step 3 : Select country as India and Accept terms and conditions then click create project button.

Step 4 : After creating the project successfully press continue.

Step 5 : Create regular angular project that we want to deploy as

`ng new MarvellousFirebase`

Step 6 : Go to your project folder as

`cd MarvellousFirebase`

Step 7 : Test your project is working or not before deployment

`ng serve - - open`

Step 8 : Build your project for production with AOT (Ahead Of Time) support

`ng build --prod --aot`

Step 9 : To host your site, you need to install Firebase command line tools using npm

`sudo npm install -g firebase-tools`

Enter superuser's password on linux based operating systems.

Step 10 : Sign in to google using terminal by entering below command

`firebase login`

It will ask you to access to the internet or browser as:

Allow Firebase to collect anonymous CLI usage and error reporting information?
(y/N) (Type Yes and <enter> for next)

It will automatically opens browser to gmail, login here to your google account If already login select your account and Allow Access for firebase-cli.

It will display "Firebase CLI Login Successful" on your browser.

Step 11 : Initialize the firebase project with your production code using below command

`firebase init`

Step 12 : Here it will ask Do you want to proceed If ask (Type Yes and <enter> for next, otherwise ignore if doesn't ask)

Step 13 : Here you have to select firebase develop options

Which Firebase CLI features do you want to setup for this folder? Press Space to select features, then Enter to confirm your choices.

(Press <space> to select then <enter> to next step)

- ☐ Database: Deploy Firebase Realtime Database Rules
- ☐ Firestore: Deploy rules and create indexes for Firestore
- ☐ Functions: Configure and deploy Cloud Functions
- ☒ **Hosting: Configure and deploy Firebase Hosting sites**
- ☐ Storage: Deploy Cloud Storage security rules

As we want to host website then select only **Hosting** option.

Step 14 : Select your firebase project created in step 2

Select a default Firebase project for this directory:(Use arrow keys) (Select your desired project and <enter>)

In our case it is **MarvellousFirebase**

Step 15 : Select folder to deploy on firebase

What do you want to use as your public directory? (public) (Type dist/ yourprojectname and <enter> for next step)

In our case it should be **dist/MarvellousFirebase**

We have to provide folder name which contains index.html file in it.

Step 16 : Type Yes for single page app

Configure as a single-page app (rewrite all urls to /index.html)? (y/n)(Type Yes and <enter> for next)

On success it display "Firebase initialization complete"

Step 17 : Type No for Overwrite index.html

File (dist/ yourprojectname /index.html) is already exists. Overwrite?(y/n)
(Type No and <enter> for next)

Step 18 : Deploy your Project

firebase deploy

Step 19 : Open our hosted website using below command

firebase open hosting:site