

# Angular training

Angular project deployment

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# Deploying Angular code

A web application should typically run on the web and be accessible by anyone and from anywhere.

It needs two essential ingredients: a web server hosting the application and a production build to deploy it to that server.

A production build of a web application is an optimized version of the application code that is smaller, faster, and more performant.

Primarily, it is a process that takes all the codefiles of the application, applies optimization techniques, and converts them to a single bundle file.

<https://angular.io/guide/build>

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# Building an Angular application

To build an Angular application, we use the following command of the Angular CLI:

```
ng build
```

The build process boots up the Angular compiler, which primarily collects all TypeScript and HTML files of our application code and converts them into JavaScript. CSS stylesheet files such as SCSS are converted into pure CSS files. The build process ensures the fast and optimal rendering of our application in the browser

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# Build output

```
wanmuz@Wans-MacBook-Air hello-world % ng build
```

Initial chunk files	Names	Raw size	Estimated transfer size
main-PQPEMMBQ.js	main	297.20 kB	76.54 kB
polyfills-RT5I6R6G.js	polyfills	33.10 kB	10.72 kB
styles-YYOLC2YI.css	styles	299 bytes	299 bytes
Initial total		330.60 kB	87.55 kB

```
Output location: /Users/wanmuz/Documents/programming/angular-class/hello-world/dist/hello-world
```

```
Application bundle generation complete. [2.711 seconds]
```

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# Build output (2)

The files generated from building the Angular application are:

- `main`: The actual application code that we have written
- `polyfills`: Feature polyfills for older browsers
- `runtime`: Angular code that is needed for our application to run
- `styles`: Global CSS styles of our application

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# base-href

If you already have a web server that you want to use for your Angular application, you can copy the contents of the output folder to a path in that server.

If you want to deploy it in another folder other than the root, you can change the href attribute of the `<base>` tag in the main HTML file in the following way

```
ng build --base-href=/mypath/
```

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# Configuration file

The file `angular.json` contains the configuration file where you can set different settings for different stage.

Here you can set if there is different API url, file, key etc

<https://angular.io/guide/build>

```
    "configurations": {  
      "production": {  
        "budgets": [  
          {  
            "type": "initial",  
            "maximumWarning": "500kb",  
            "maximumError": "1mb"  
          },  
          {  
            "type": "anyComponentStyle",  
            "maximumWarning": "2kb",  
            "maximumError": "4kb"  
          }  
        ],  
        "outputHashing": "all"  
      },  
      "development": {  
        "optimization": false,  
        "extractLicenses": false,  
        "sourceMap": true  
      }  
    },  
    "defaultConfiguration": "production"  
  }
```



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# Alternative to server

**Firestore:** <https://firebase.google.com/docs/hosting>

- **Vercel:** <https://vercel.com/solutions/angular>
- **Netlify:** <https://www.netlify.com>
- **GitHub:** <https://pages.github.com>
- **npm:** <https://npmjs.com>
- **Amazon:** [https://aws.amazon.com/s3/?nc2=h\\_q1\\_prod\\_st\\_s3](https://aws.amazon.com/s3/?nc2=h_q1_prod_st_s3)

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# Deploying to github pages

## Step 1: Create GitHub Repository

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### 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 \*

/ ng-deploy-mar2024

✔ ng-deploy-mar2024 is available.

Great repository names are short and memorable. Need inspiration? How about **silver-palm-tree** ?

Description (optional)



**Public**

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



**Private**

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# Deploying to github pages

Step 2: Run the following command by specifying the `--base-href` as github pages url

`ng build --configuration production --base-href https://[username].github.io/[repo]/`

```
wanmuz@Wans-MacBook-Air hello-world % ng build --configuration production --base-href https://wanmuz86.github.io/ng-deploy-2024/
```

Initial chunk files	Names	Raw size	Estimated transfer size
main-PQPEMMBQ.js	main	297.20 kB	76.54 kB
polyfills-RT5I6R6G.js	polyfills	33.10 kB	10.72 kB
styles-YYOLC2YI.css	styles	299 bytes	299 bytes
	Initial total	330.60 kB	87.55 kB

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# Deploying to github pages

Step 3: Go into dist/<project>/browser folder and setup git from here

```
zsh: command not found: git
[wanmuz@Wans-MacBook-Air browser % git add .
[wanmuz@Wans-MacBook-Air browser % git commit -m "first commit"
[main (root-commit) 71f4a9a] first commit
 5 files changed, 24 insertions(+)
 create mode 100644 favicon.ico
 create mode 100644 index.html
 create mode 100644 main-PQPEMMBQ.js
 create mode 100644 polyfills-RT5I6R6G.js
 create mode 100644 styles-YY0LC2YI.css
[wanmuz@Wans-MacBook-Air browser % git remote add origin https://github.com/wanm
z86/ng-deploy-2024.git
[wanmuz@Wans-MacBook-Air browser % git push origin main
```

# Deploying to github pages

Step 4: In project settings deploy github pages from the pushed branch

The screenshot shows the GitHub repository settings page for a repository named 'ng-deploy-2024'. The 'Settings' tab is selected in the top navigation bar. On the left sidebar, the 'Pages' option is highlighted under the 'Code and automation' section. The main content area is titled 'GitHub Pages' and contains the following information:

- General:** A description stating 'GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.'
- Site Information:** A box indicating 'Your site is live at <https://wanmuz86.github.io/ng-deploy-2024/>'. It also shows 'Last deployed by wanmuz86 8 minutes ago' and a 'Visit site' button.
- Build and deployment:**
  - Source:** A dropdown menu set to 'Deploy from a branch'.
  - Branch:** A section stating 'Your GitHub Pages site is currently being built from the main branch.' It includes a link to 'Learn more about configuring the publishing source for your site.'
  - Branch Selection:** Below the text, there are buttons for 'main', '/ (root)', and 'Save'. A 'Select branch' dialog box is open, showing a search bar and a list with 'main' selected.

At the bottom of the page, there is a link to 's environment by the [pages build and deployment](#) workflow. [using custom workflows](#)'.