

Deploying a web app

We've written web apps

- Seen them on "localhost"

How to get them where other people can see?

Static-vs-dynamic

You need a **host** for your content

A big factor is what you need to host

- static HTML/JS/CSS
 - `build/` contents after `npm run build`
- OR a server that generates dynamic content
 - Directly or via web services

Just static is easier/cheaper

- Limited functionality
- Great for one-way information flow

A few options

There are countless hosting providers

- Here are a few free/cheap options
 - I've used or heard recommended
 - Not an endorsement
 - Not exhaustive list
- Good to show off
 - Anything with high traffic/high reliability should pay for stronger options

Github pages

<https://docs.github.com/en/pages>

- Static only
- Either a site for repo, or a site for you
- Change settings to publish a `github.io` site

Confusing: Some options we DON'T want:

- We aren't building a site from `.md` files using Jekyll
- `gh-pages` CAN be used, not required
- Docs confuse by talking about both

Creating a GitHub Pages site for a repo

- Will publish to `https://{USER}.github.io/{REPO}/`
 - Or configure a domain you have registered
 - Registering a domain separate process (\$)

<https://create-react-app.dev/docs/deployment#github-pages>

- If not using React
 - `gh-pages` can deploy directory to site
 - You configure which one

Vercel offers hosting for various frameworks

- Create-react-app on list
- Vercel is notable for Next.js (server-side React)
- Works by having a separate github repo
 - Push to that repo to deploy to site

Fly.io has more free options

<https://fly.io/docs/speedrun/>

- Free tier for a lot of options
- Static requires running a server
 - Which you have to provide
 - But the docs have a demo
- I had some errors/bumps

Render offers free STATIC hosting, \$ for more

<https://render.com/>

- I've not used them
- Wanted more access to my repo than I liked

<https://create-react-app.dev/docs/deployment#render>

Amazon Web Services (AWS)

Notice: Most of AWS isn't always free

- And can wrack up bills if you exceed use
- BE CAUTIOUS

You have many options with Amazon

- S3 can host static websites
- Amplify can host a single page app
- Lightsail

```
https://docs.aws.amazon.com/AmazonS3/latest/  
userguide/WebsiteHosting.html
```

Summary - Hosting

- **Hosting providers**
 - Places to put your web content as a site
 - Offer their domain by default
 - You have to register a domain separately (\$)
 - Then configure host to use domain
- **Static files** (HTML/JS/CSS) vs server is a big factor
 - "Serverless" = Static files calling web services
 - Web services on other server than host
- Free and Paid options exist

Summary - options

- So many hosting options
- Some examples:
 - Github pages
 - Vercel
 - Render
 - Fly
 - AWS S3
 - AWS Amplify
 - AWS Lightsail