Deployment

Helen Yang

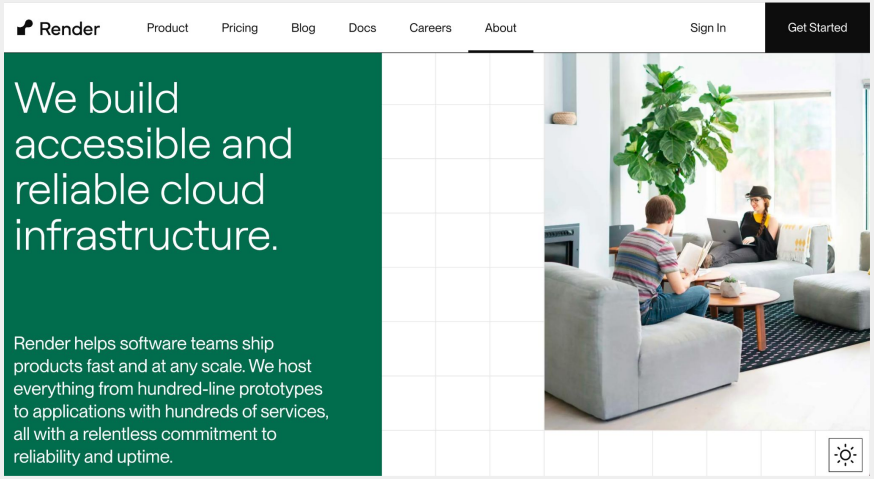
So you've made a web app… Now what?

Deployment

- We need to deploy! What is deployment?
  - Making your web app accessible to the world!
  - Really just getting somebody else to run your server.js
    - npm run start
  - Now any time someone wants to access your site, they can visit a url, which will open up a client
    - localhost:5050 -> yourwebsite.com

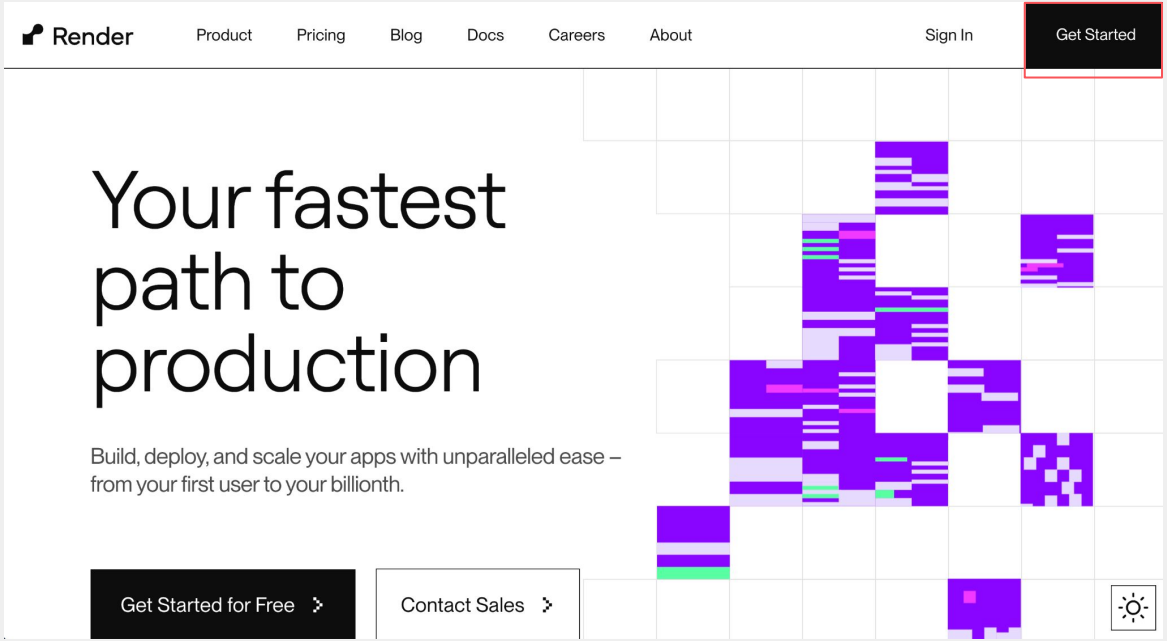
Deployment

- We’re going to use Render to deploy.
- yourappname.onrender.com
- http://catbook-5bwk.onrender.com/



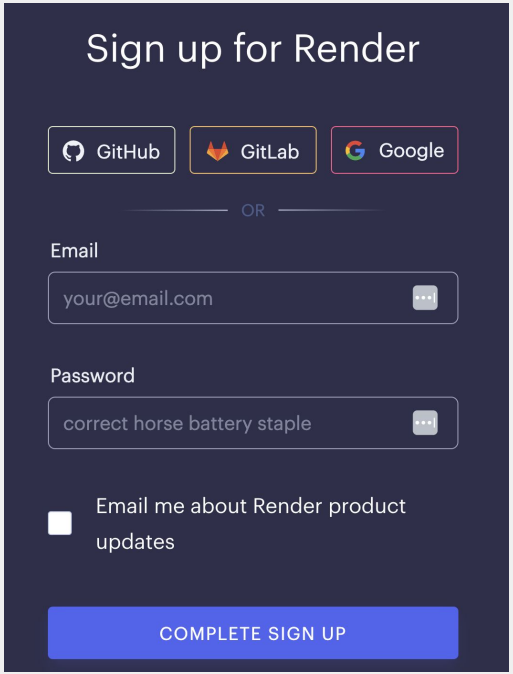
Part 1: Create a Render Account

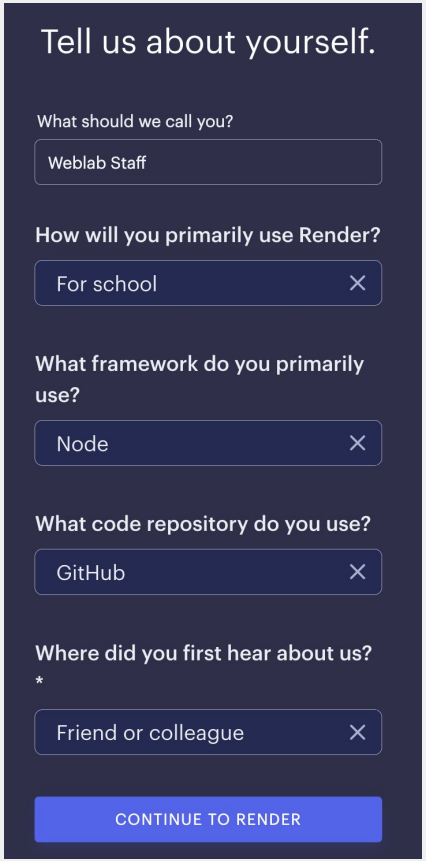
1. Go to https://www.render.com/ and click “Get Started” in the top right.



Part 1: Create a Render Account

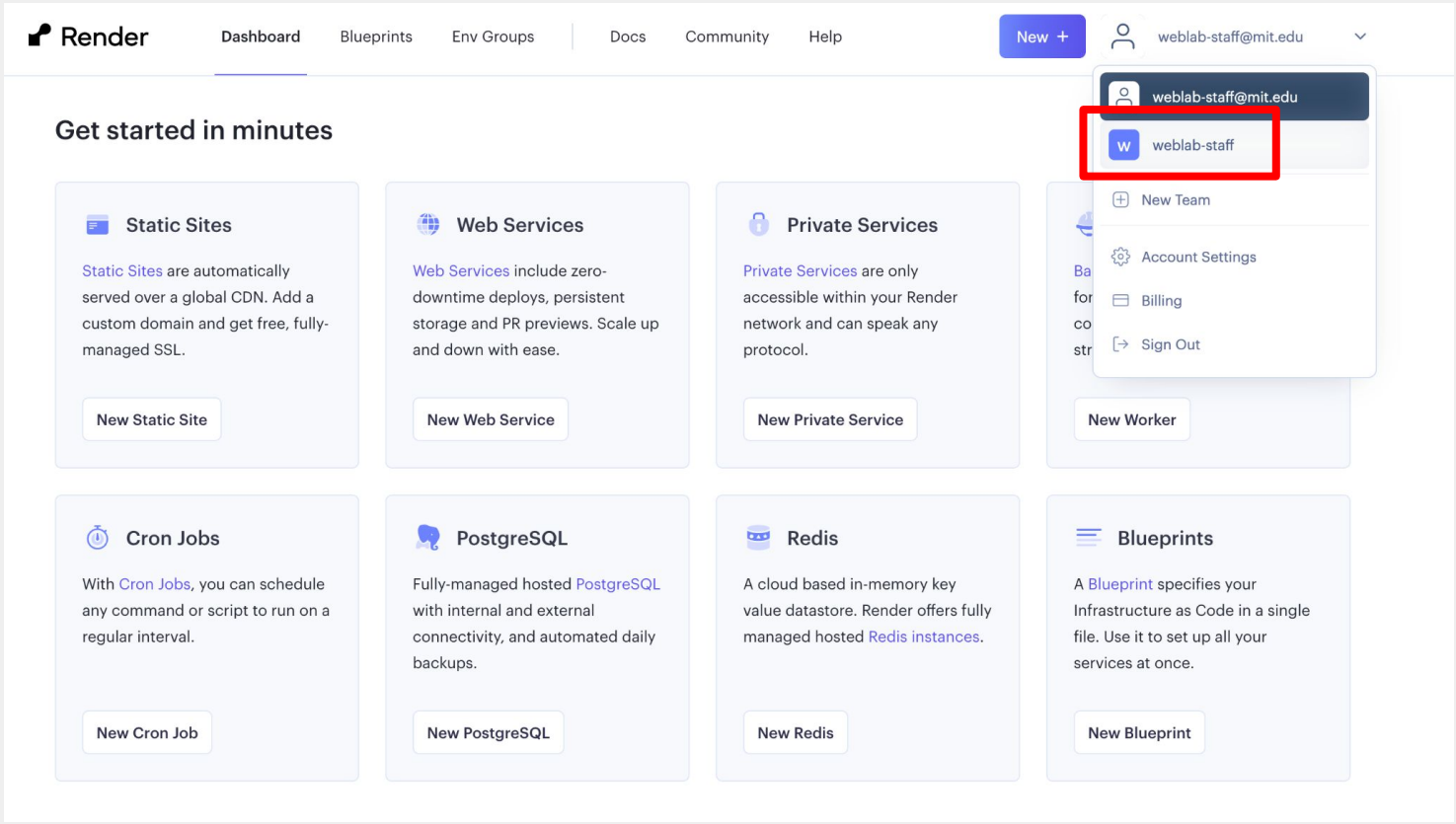
2. Fill out the account creation info, verify email, and fill out form to create account.



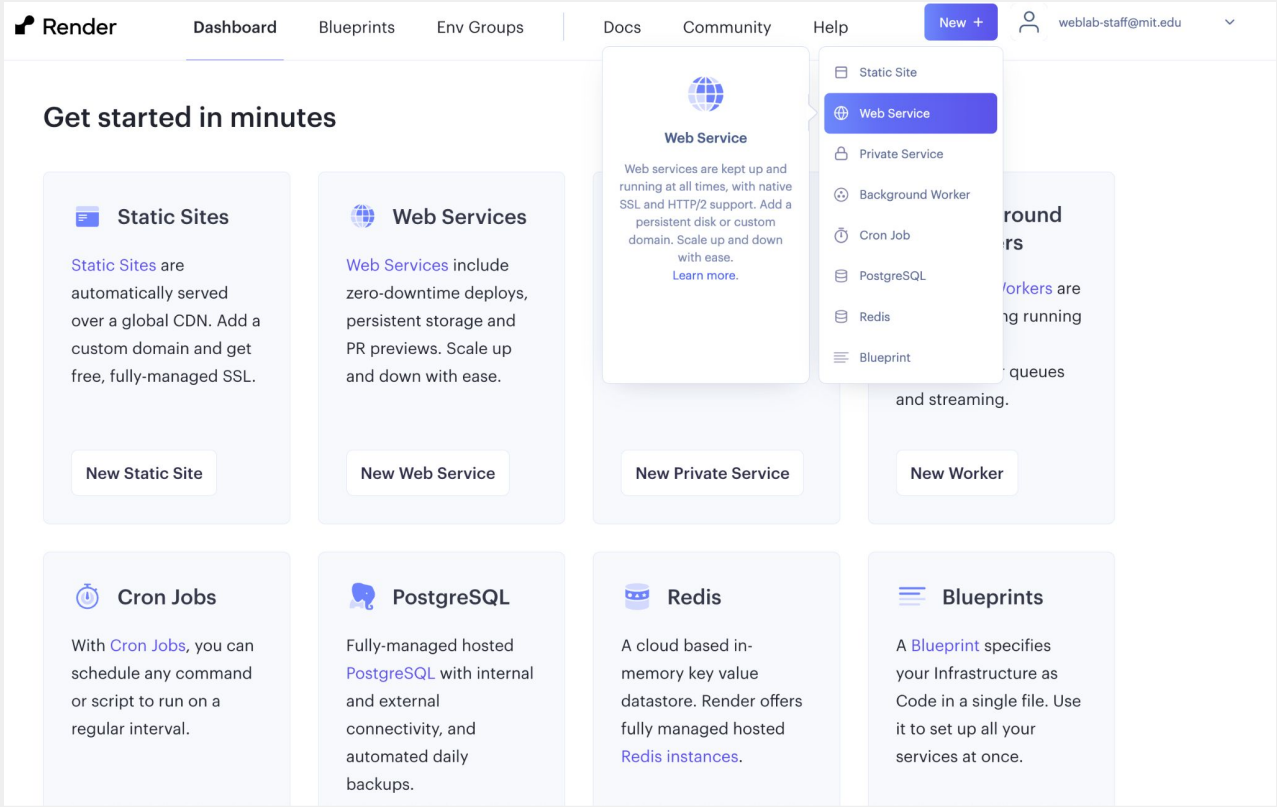


Deployment: Visual Walkthrough
Only 1 person per team needs to do this

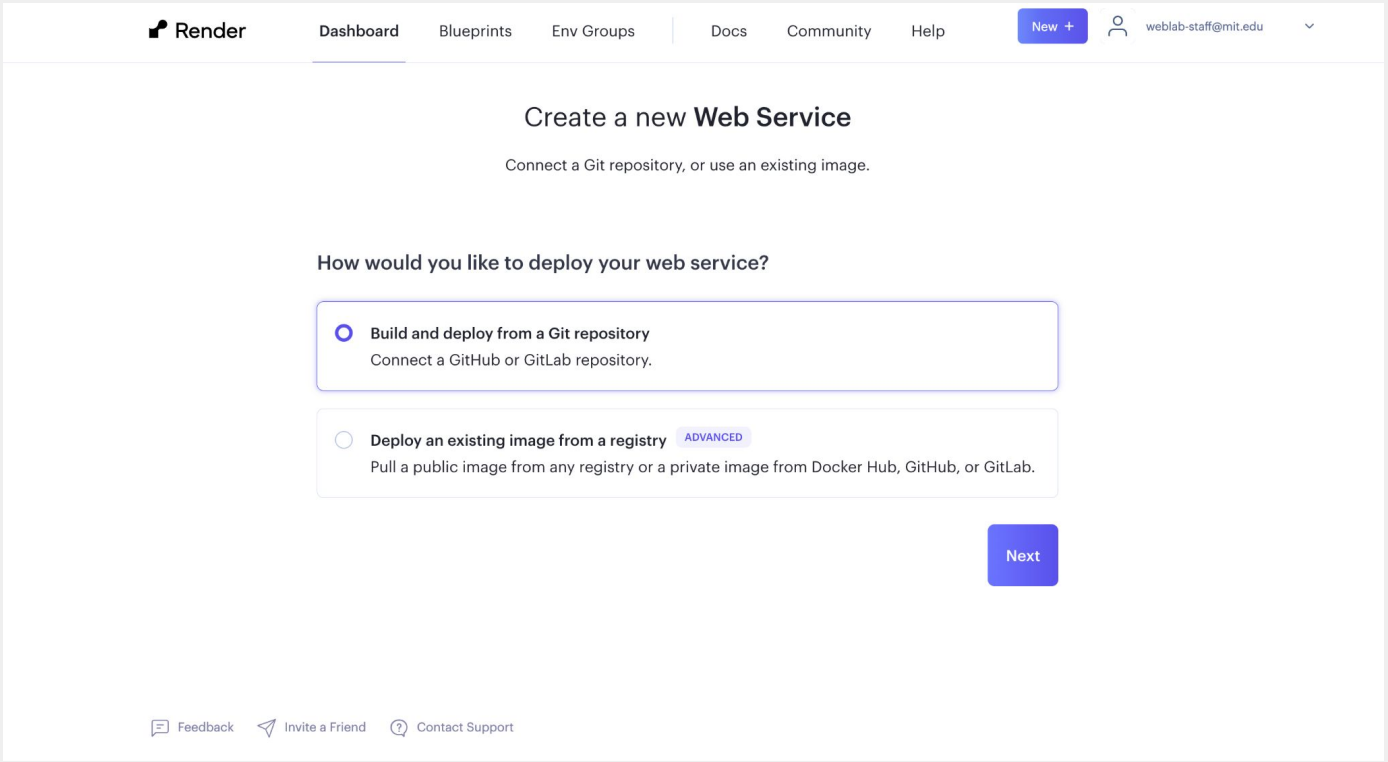
Deployment: visual walkthrough



Deployment: visual walkthrough

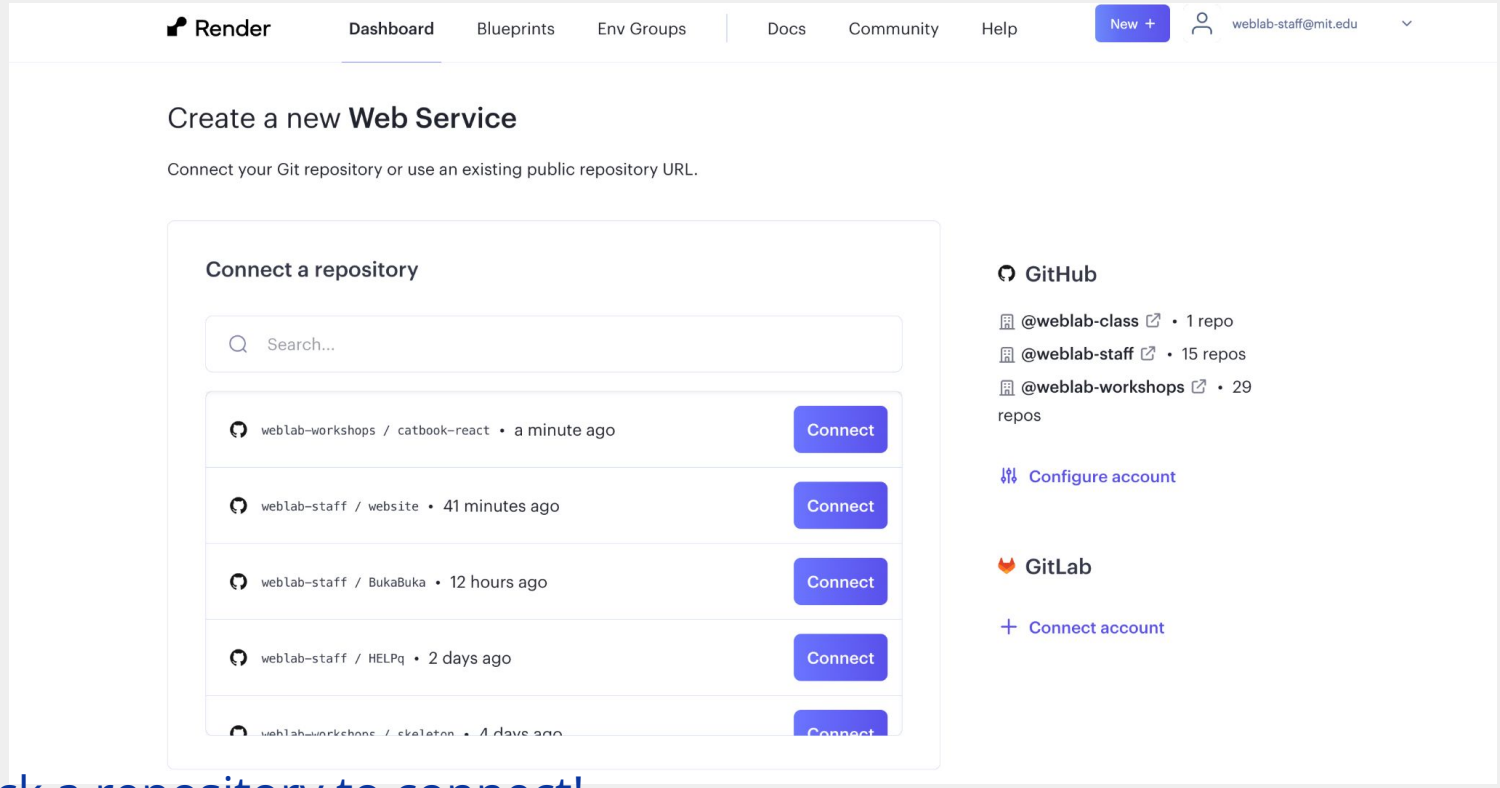


Deployment: visual walkthrough



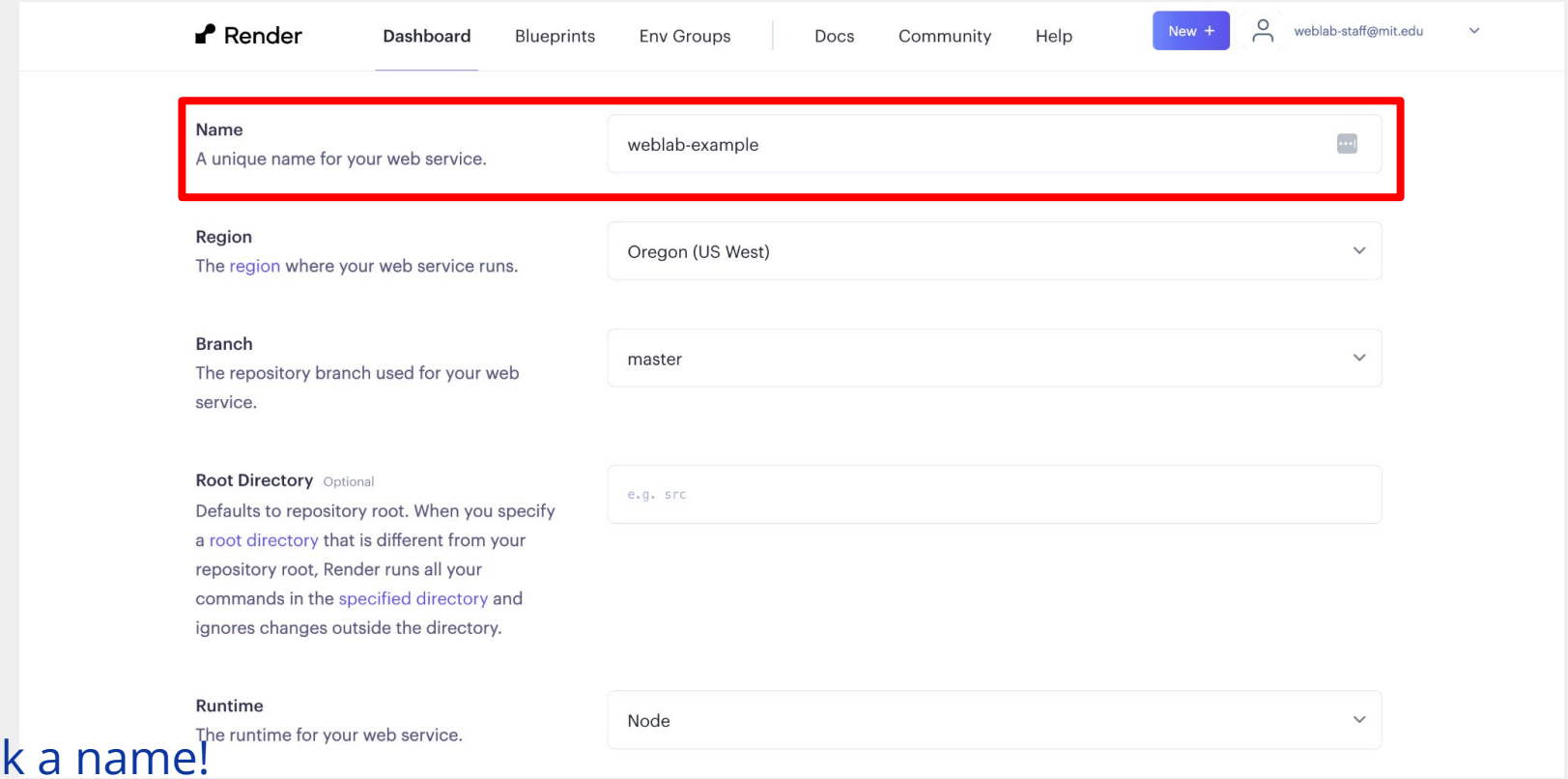
Select “Build and deploy from a Git repository”

Deployment: visual walkthrough



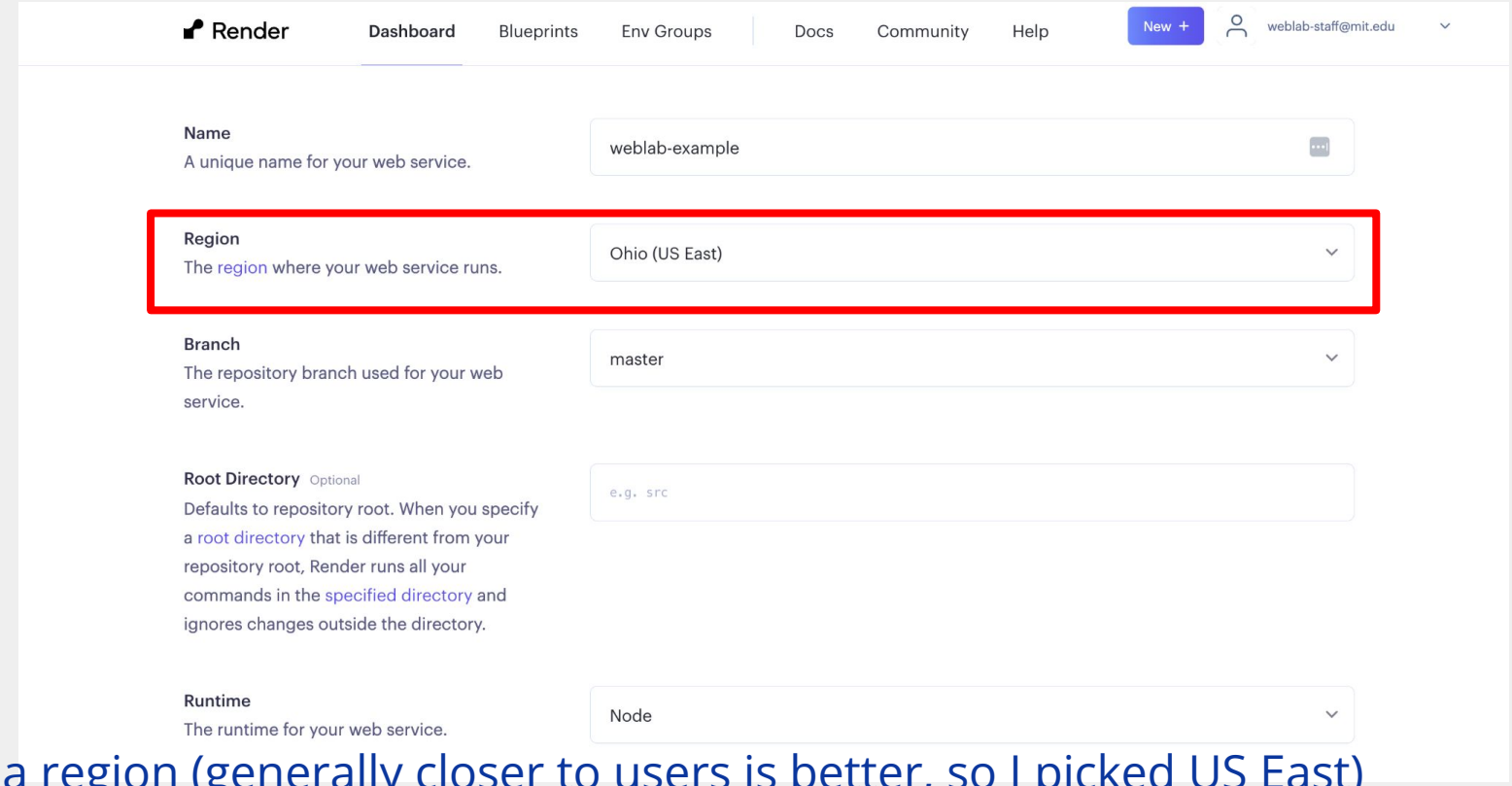
Pick a repository to connect!

Deployment: visual walkthrough



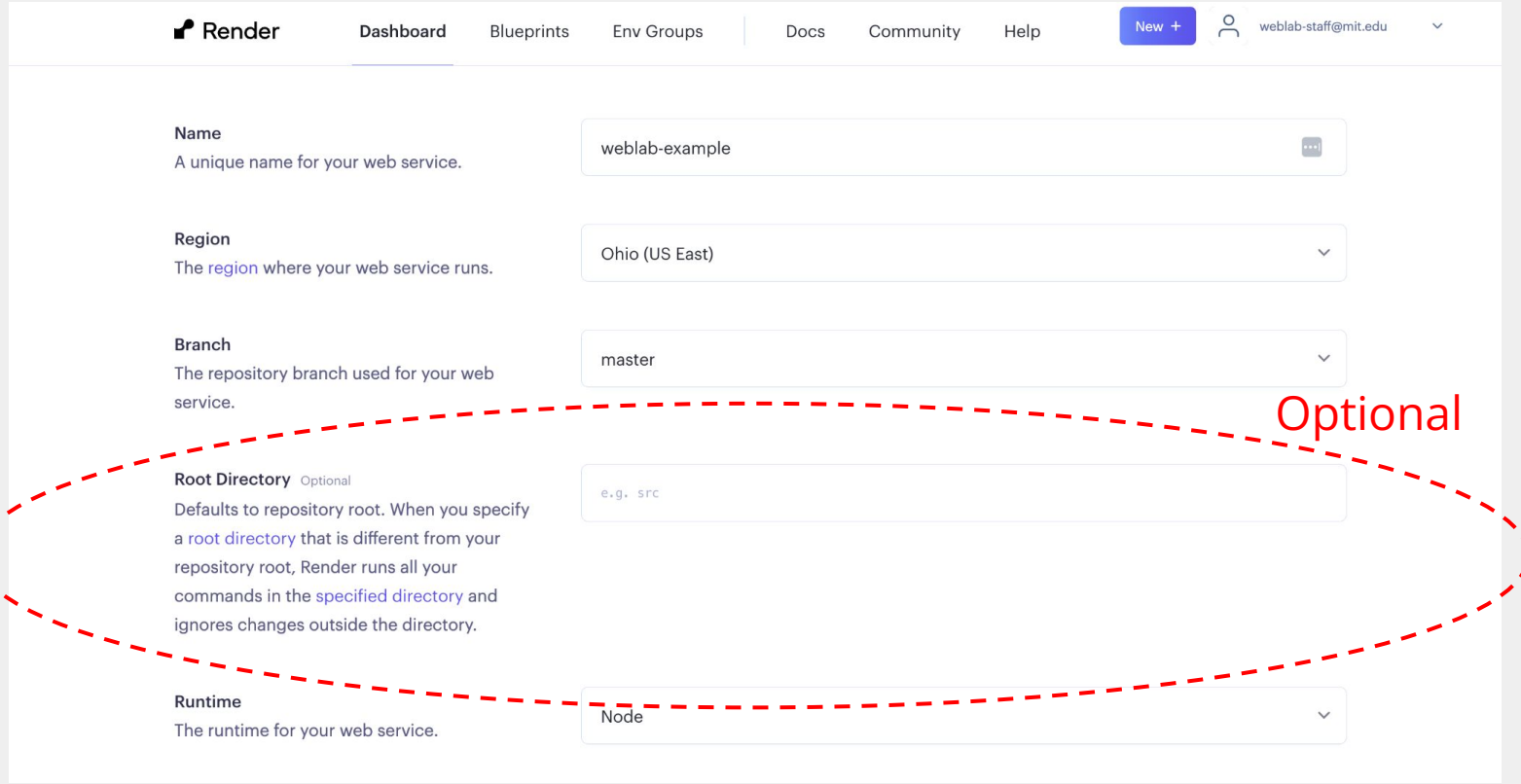
Pick a name!

Deployment: visual walkthrough

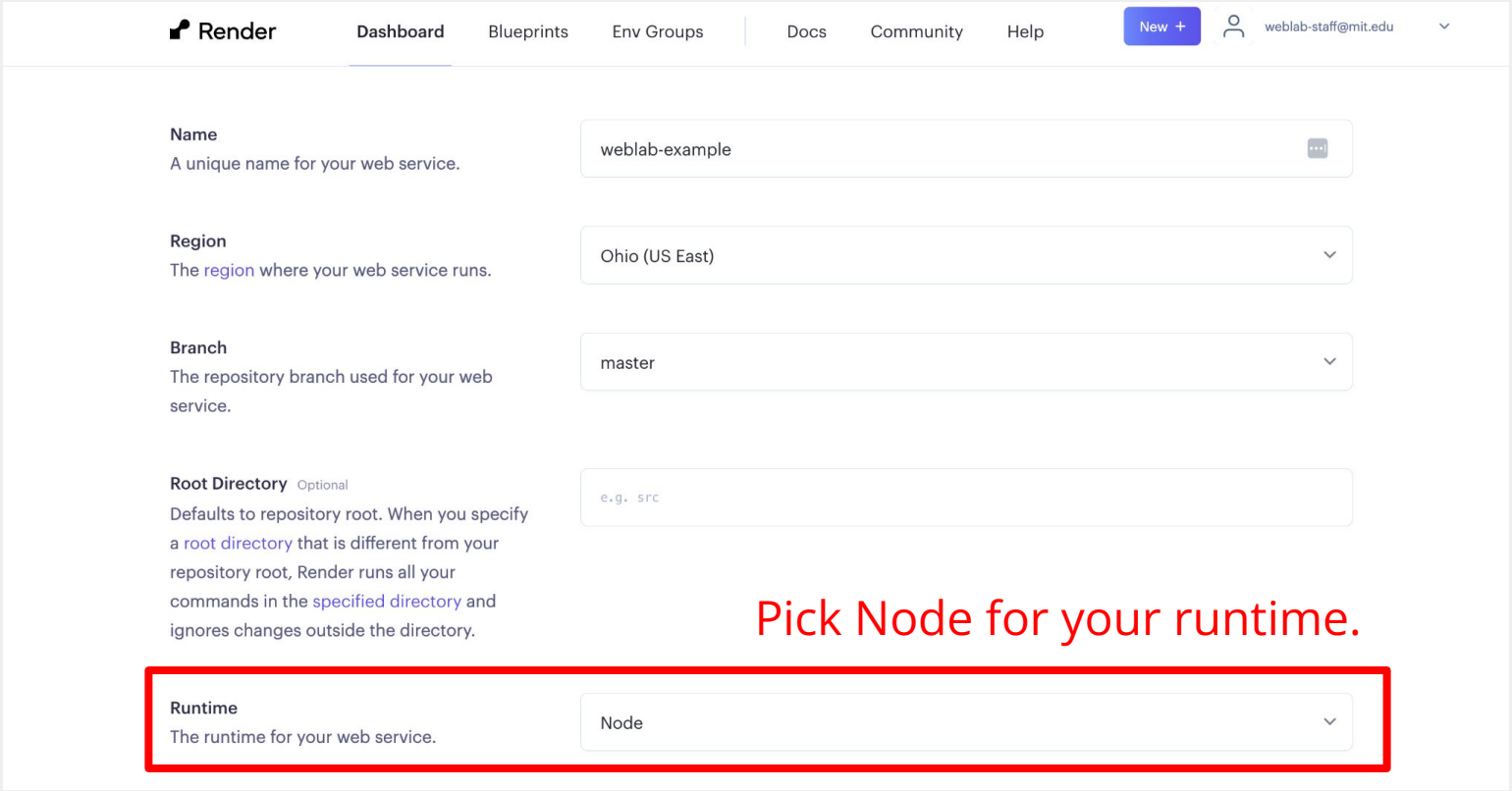


Pick a region (generally closer to users is better, so I picked US East)

Deployment: visual walkthrough



Deployment: visual walkthrough



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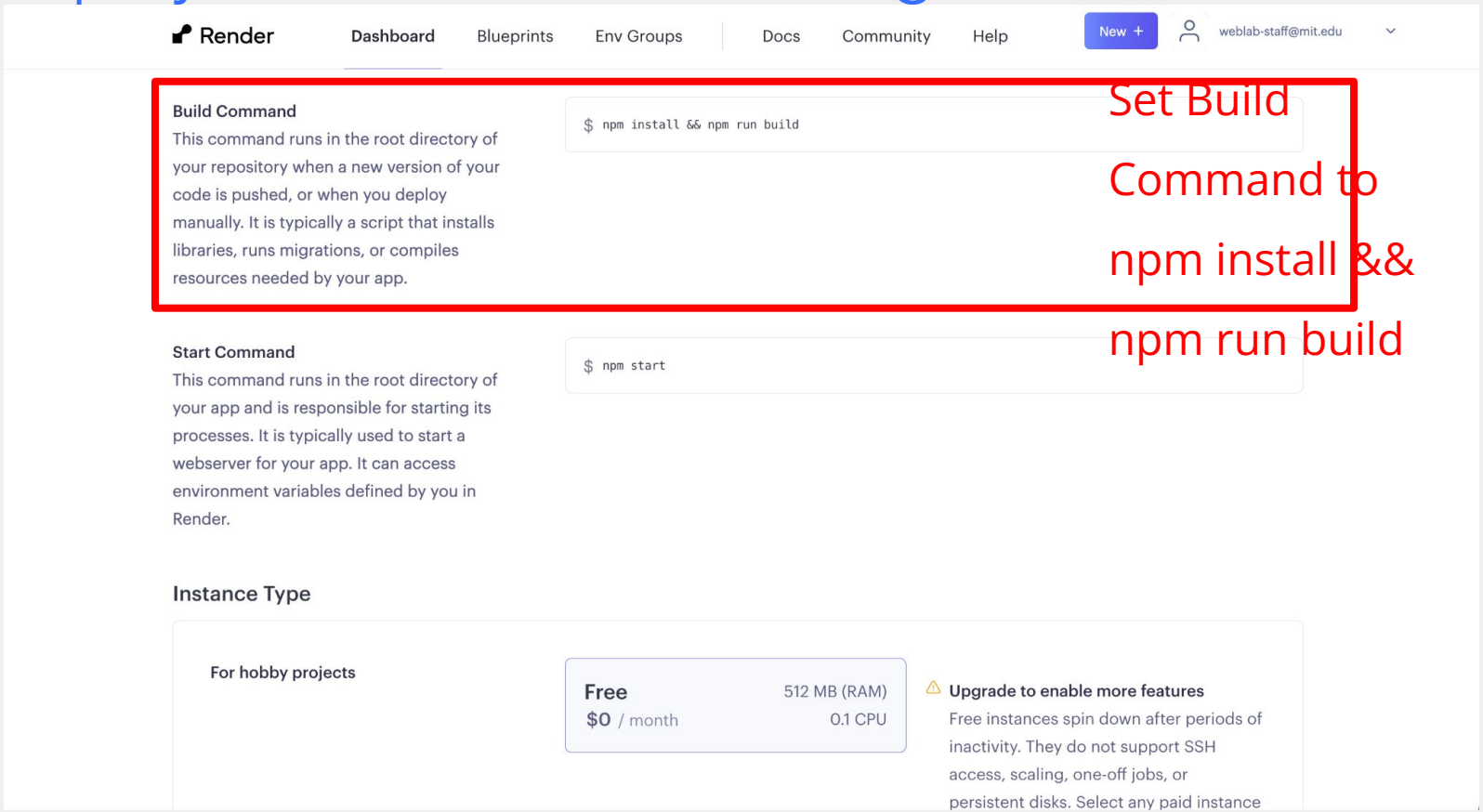
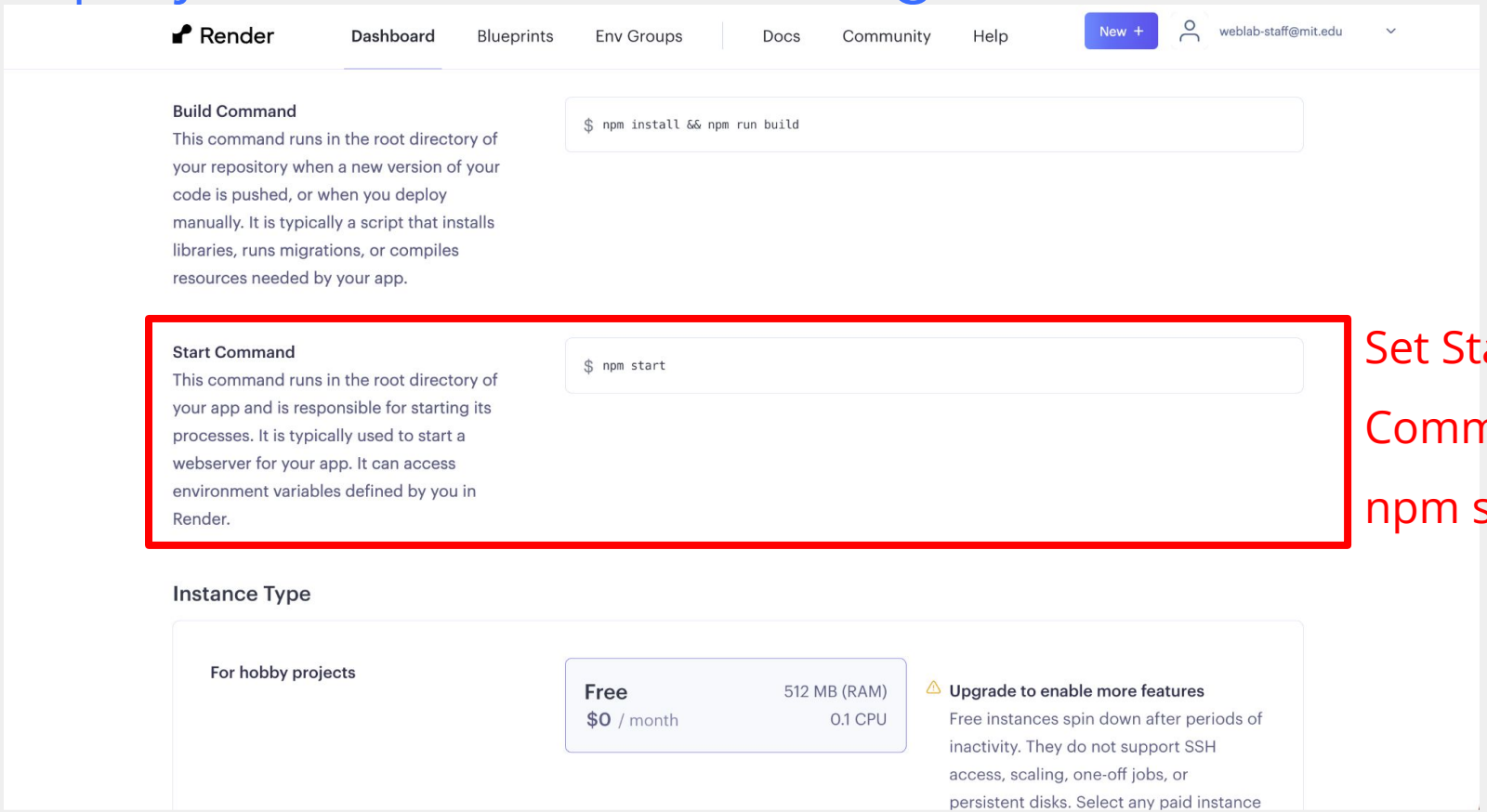
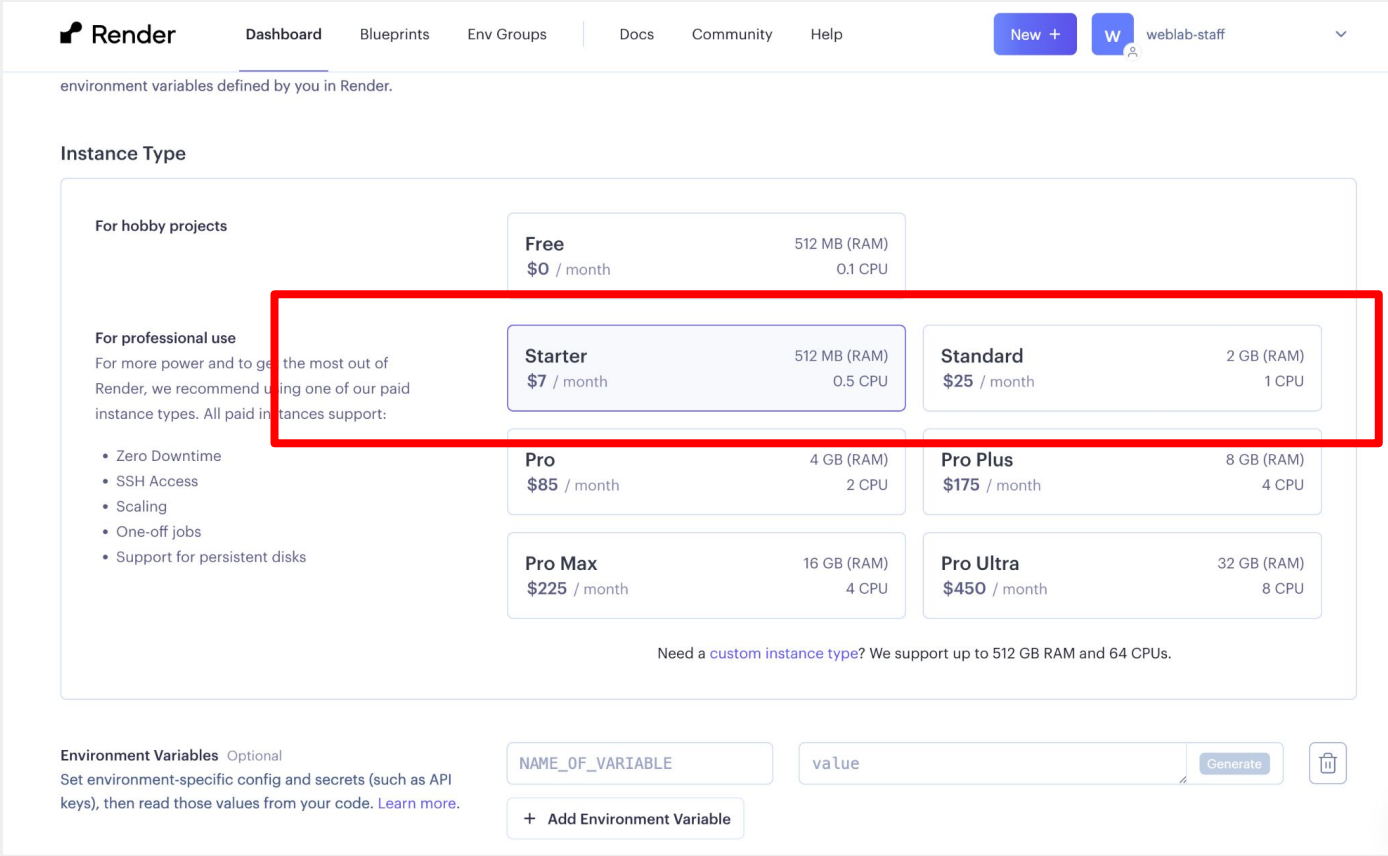


Deployment: visual walkthrough



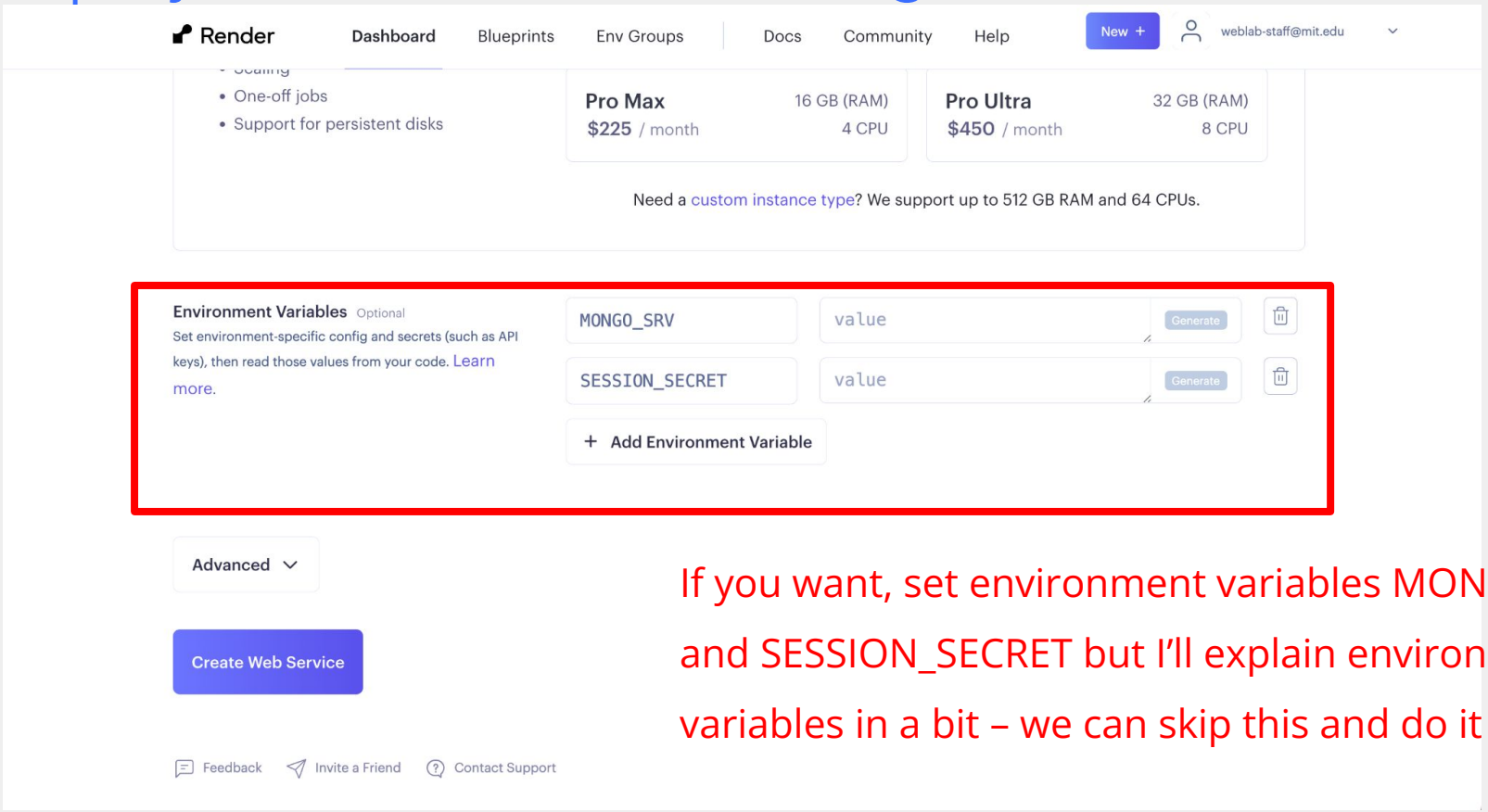
Set Start Command to npm start

Deployment: visual walkthrough



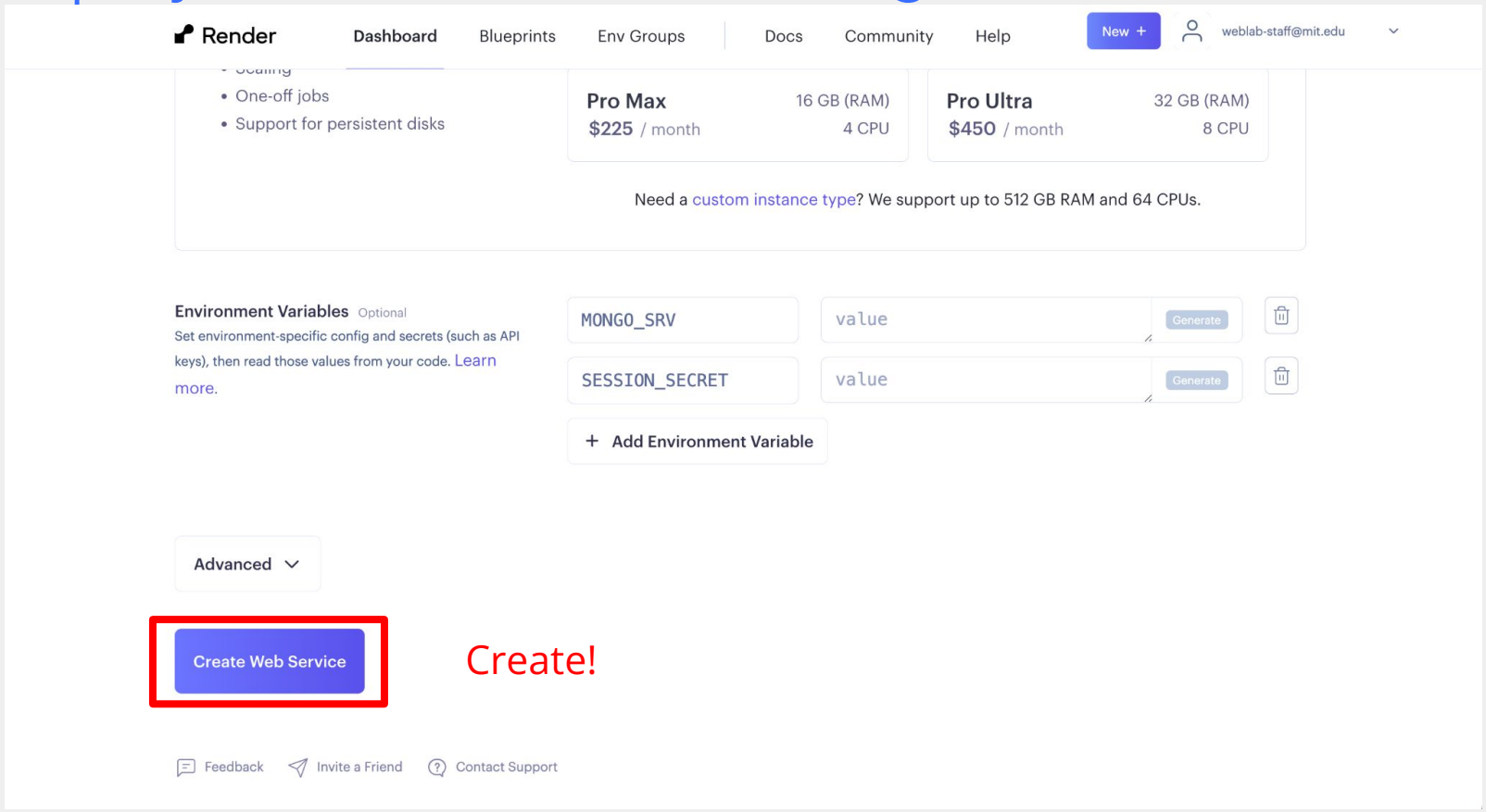
Select any tier under $200!

Deployment: visual walkthrough



If you want, set environment variables MONGO_SRV and SESSION_SECRET but I'll explain environmental variables in a bit – we can skip this and do it later

Deployment: visual walkthrough

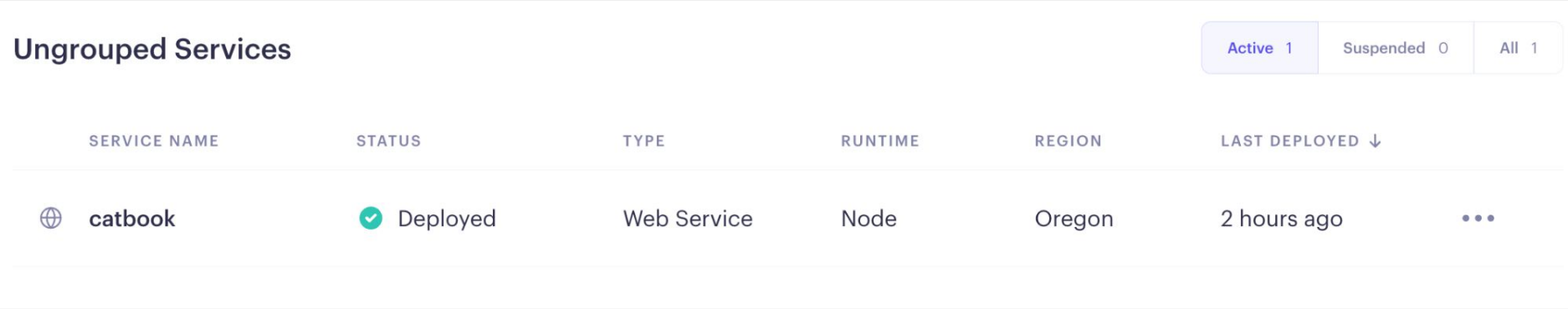


Boom! We've deployed!

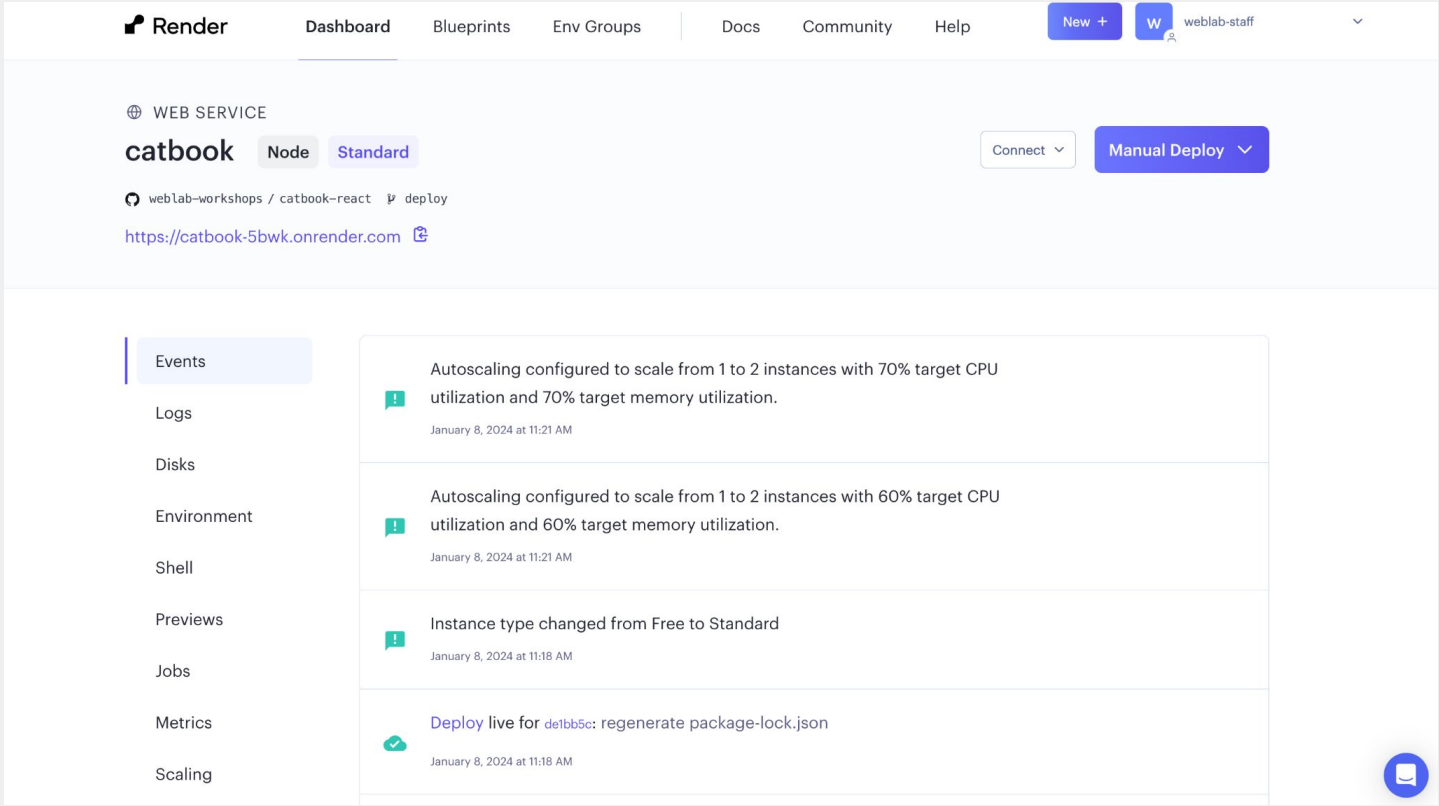
Or did we?

If success…

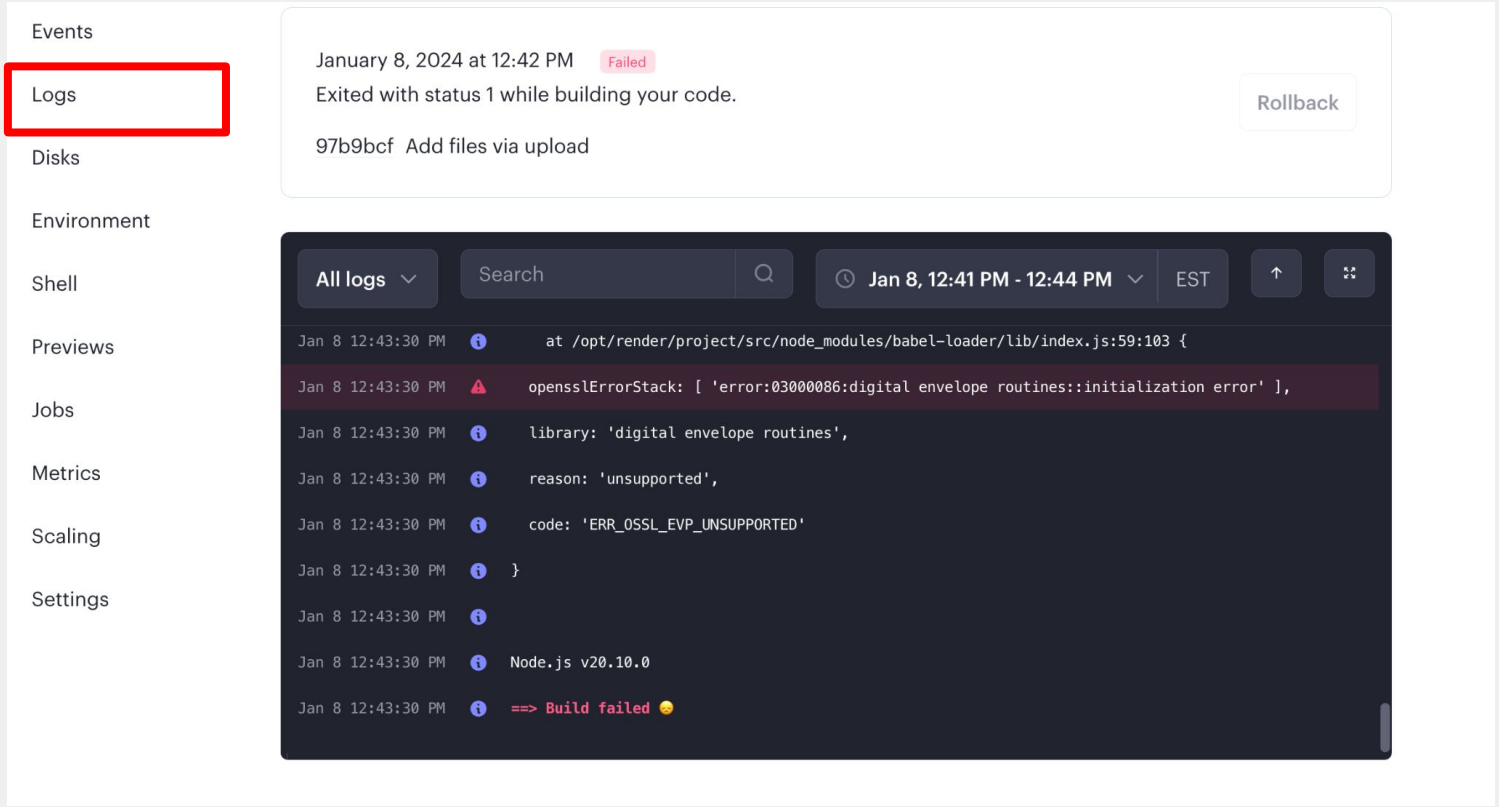
If should see something like this on your dashboard after deploying, you should be good to go for now!



If success…

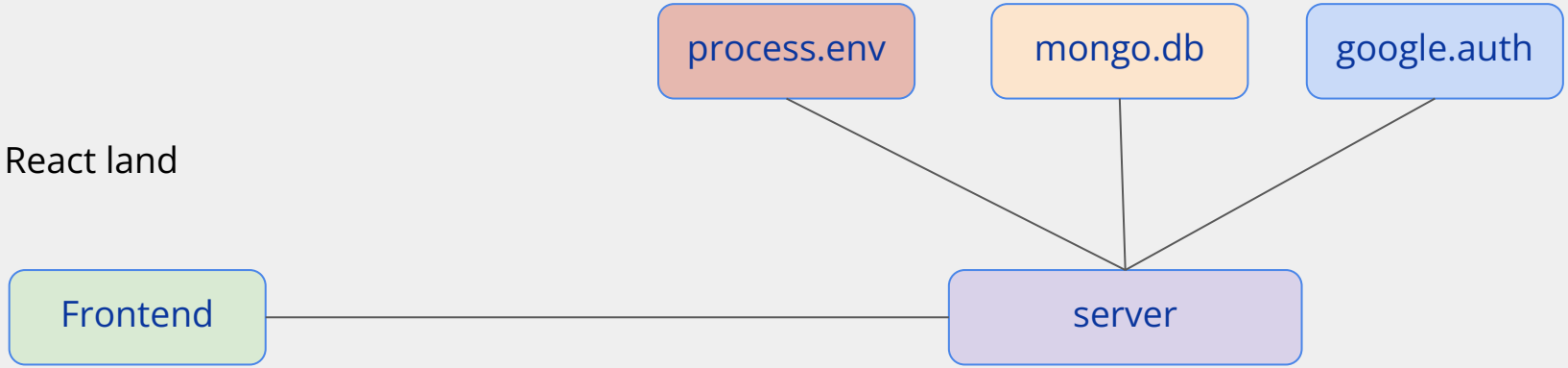

Render
Dashboard
Blueprints
Env Groups
Docs
Community
Help
New +
W
weblab-staff
WEB SERVICE
catbook
Node
Standard
Connect
Manual Deploy
weblab-workshops / catbook-react
deploy
https://catbook-5bwk.onrender.com
Events
Logs
Disks
Environment
Shell
Previews
Jobs
Metrics
Scaling
Autoscaling configured to scale from 1 to 2 instances with 70% target CPU utilization and 70% target memory utilization.
January 8, 2024 at 11:21 AM
Autoscaling configured to scale from 1 to 2 instances with 60% target CPU utilization and 60% target memory utilization.
January 8, 2024 at 11:21 AM
Instance type changed from Free to Standard
January 8, 2024 at 11:18 AM
Deploy live for de1bb5c: regenerate package-lock.json
January 8, 2024 at 11:18 AM

Otherwise… check logs to debug!!



Setting environment variables

Understanding process.env



Understanding process.env

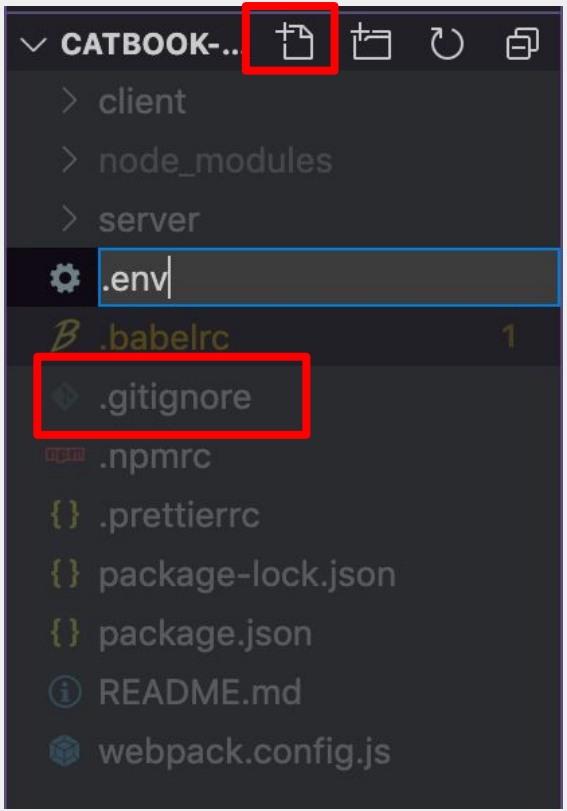
- process.env serves as a sort of **global variable** for our **backend** files to access
- We can use it to hide sensitive info

Understanding process.env

How to use process.env

- Step 1: Add a file named `.env` to your project's outermost folder

- Step 2: Add .env to your project's `.gitignore` file



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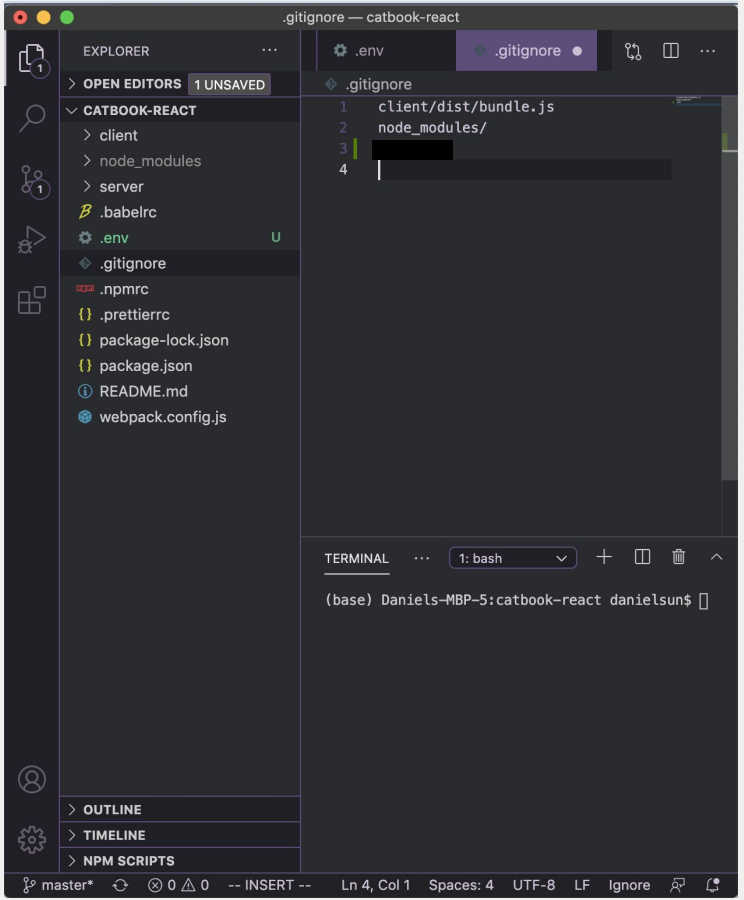

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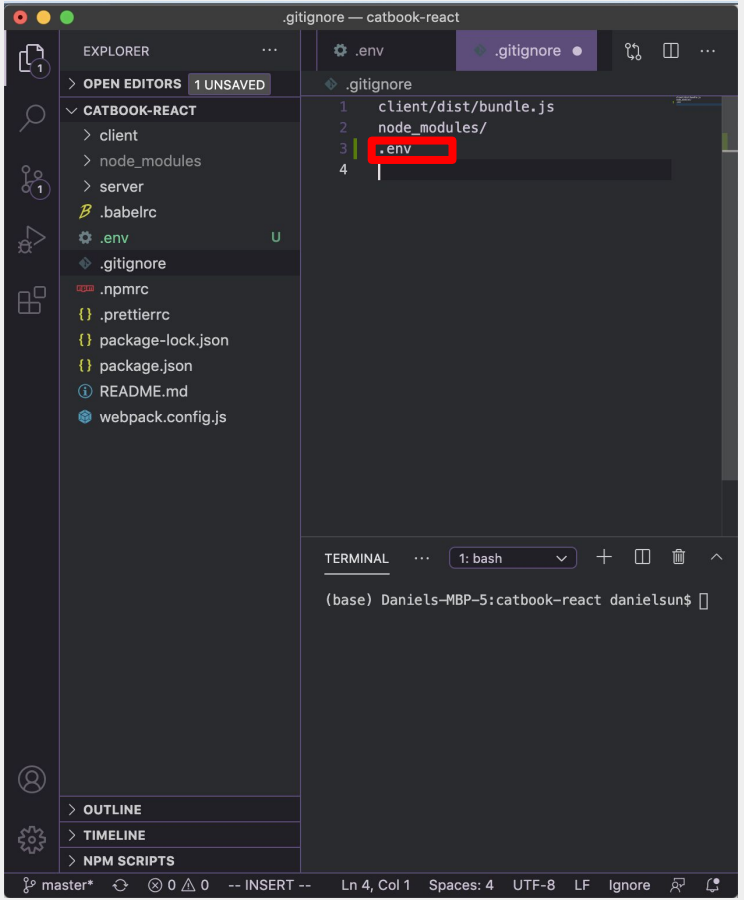


How to use process.env

- Step 3: Add relevant *sEcREts* to the .env file

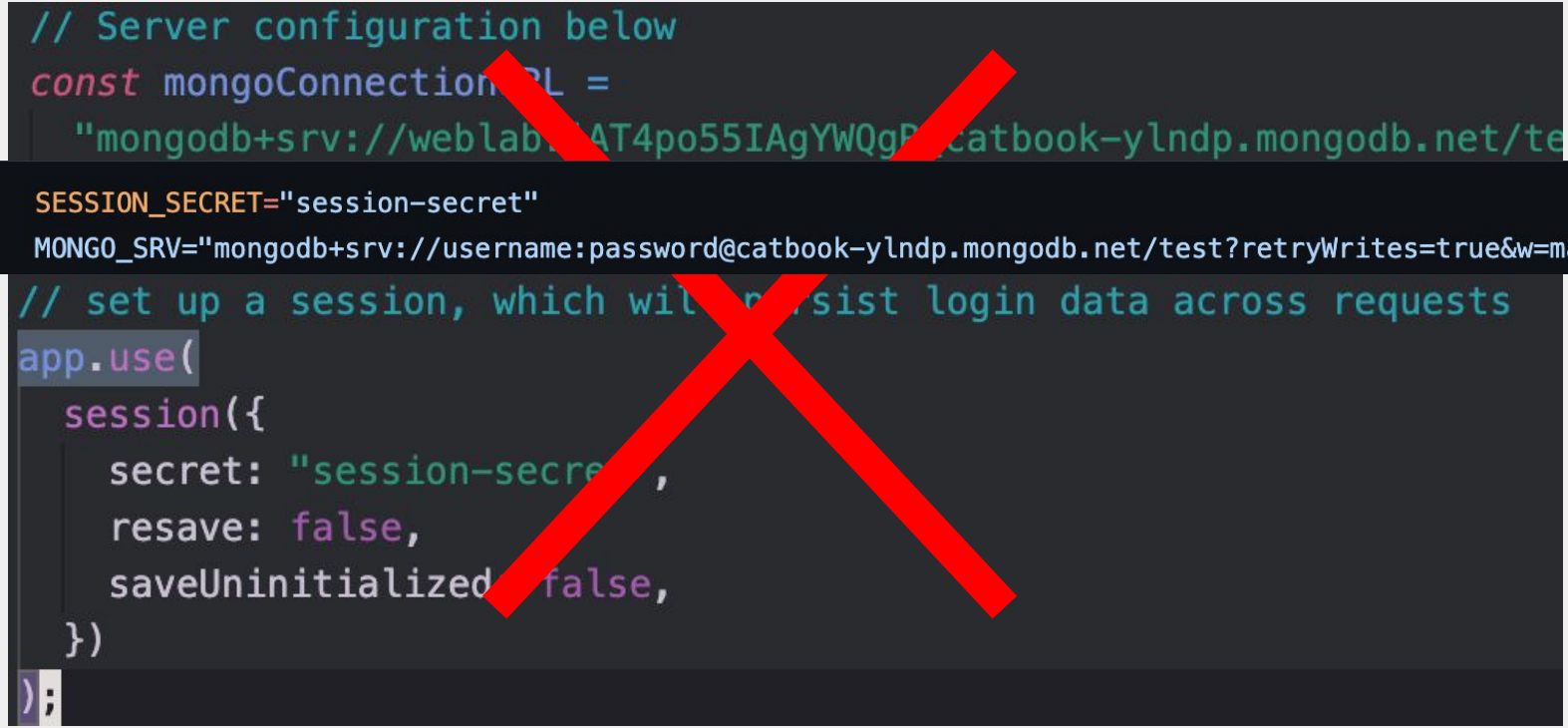
```
1    SESSION_SECRET="session-secret"
2    MONGO_SRV="mongodb+srv://username:password@catbook-ylndp.mongodb.net/test?retryWrites=true&w=majority"
```

- Note! Everyone has to make their own `.env` file!

How to use process.env

- Step 4: Install the `dotenv` package!
  - Use `npm install dotenv`
- Step 5: Add the following line near the top of `server.js`
  - `require('dotenv').config();`
- Step 6: Use `process.env.VAR_NAME` where needed!

How to use process.env



How to use process.env

```
// Server configuration below
// TODO change connection URL after setting up your team database
const mongoConnectionURL = process.env.MONGO_SRV;
// TODO change database name to the name you chose
const databaseName = "FILL_ME_IN";
```

```
// set up a session, which will persist login data across requests
app.use(
  session({
    secret: process.env.SESSION_SECRET,
    resave: false,
    saveUninitialized: false,
  })
);
```

Deployment: again!

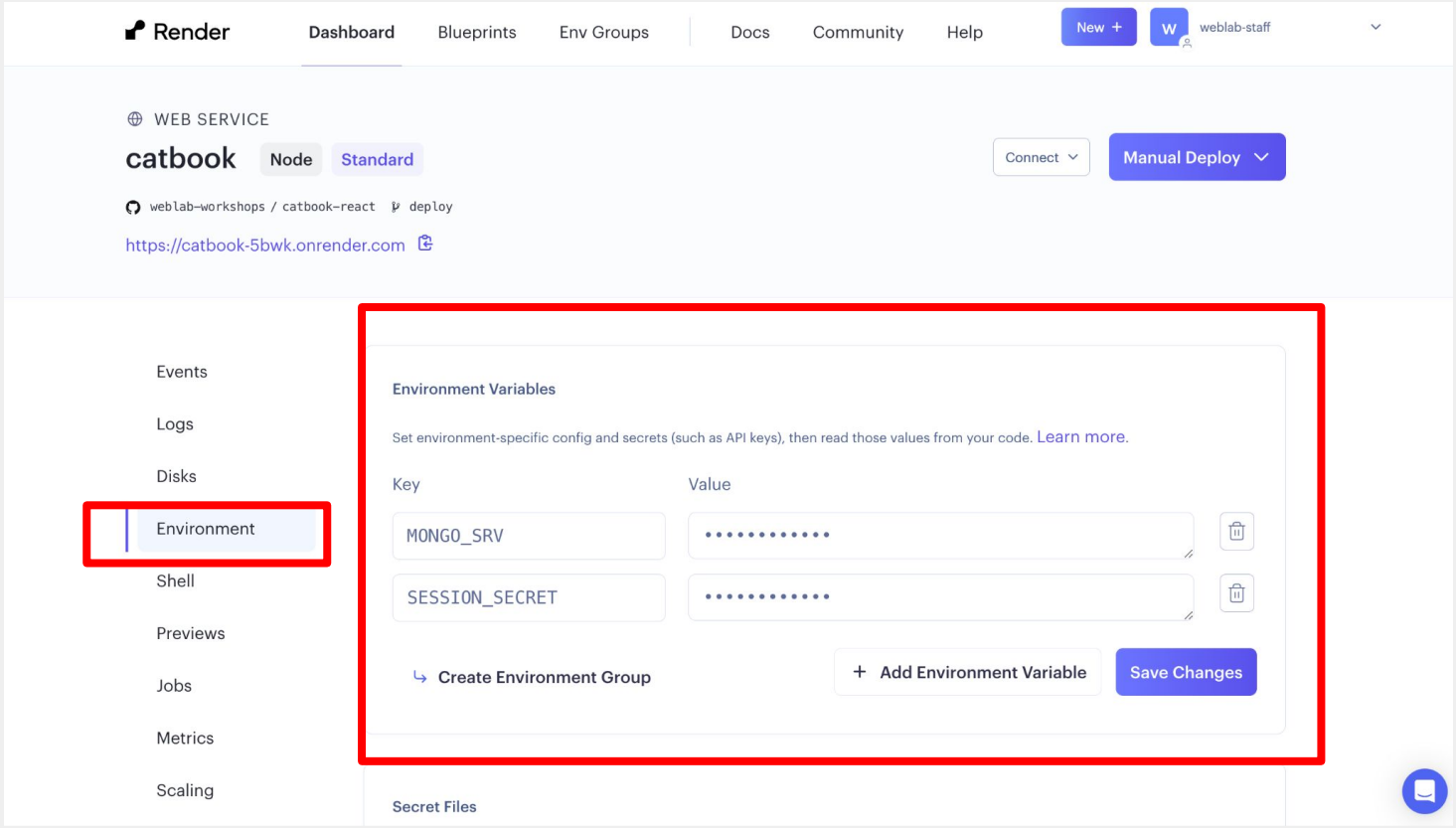
- After making these changes, always remember to:
  - git add <file>
  - git commit -m "message"
  - git push
- After that, we can redeploy!

Setting environment variables on Render

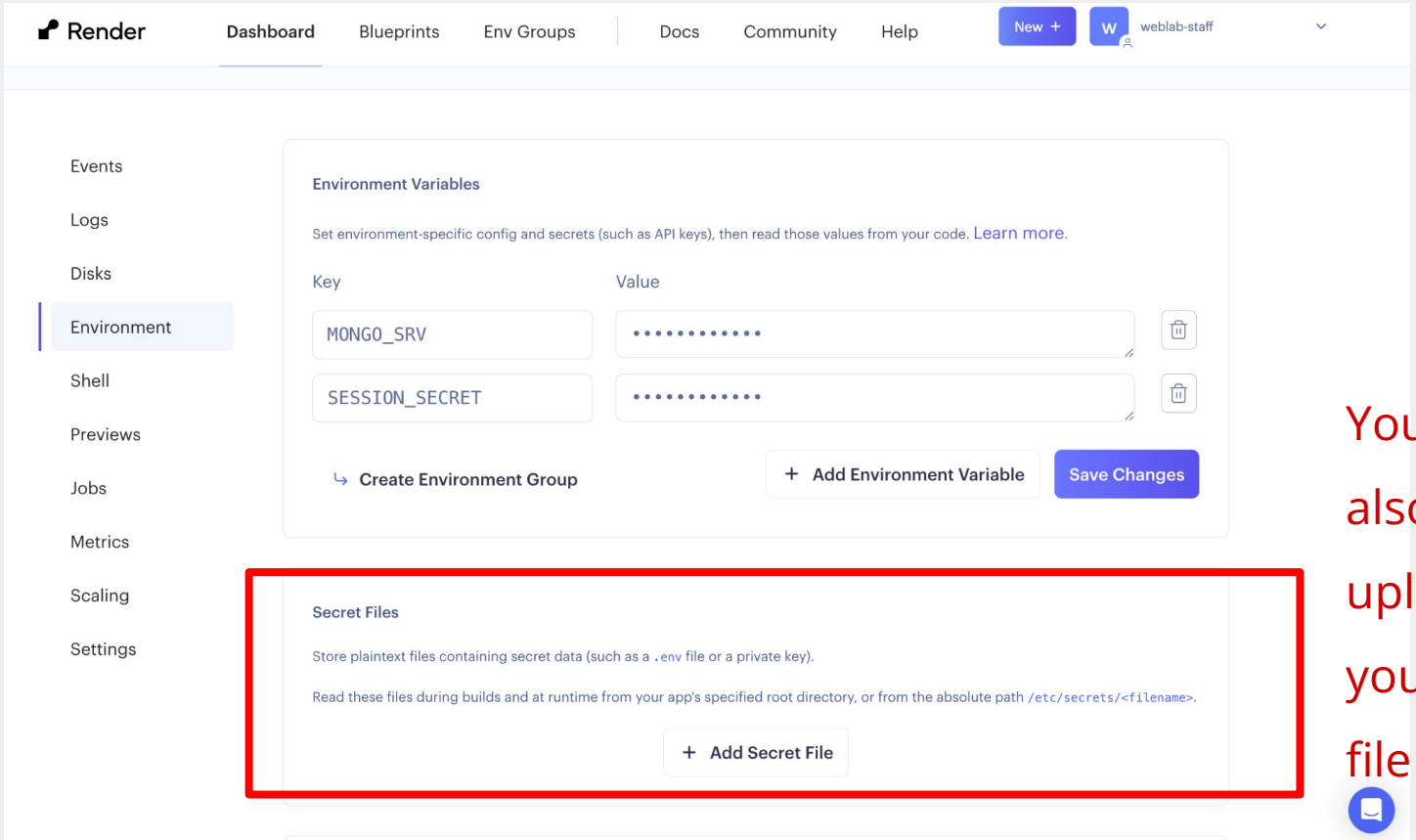
Understanding environmental variables on Render

- Render doesn’t actually have access to our .env files!
- To fix this, we can set Render environment variables
  - Render version of a .env file

How to set environment variables on Render



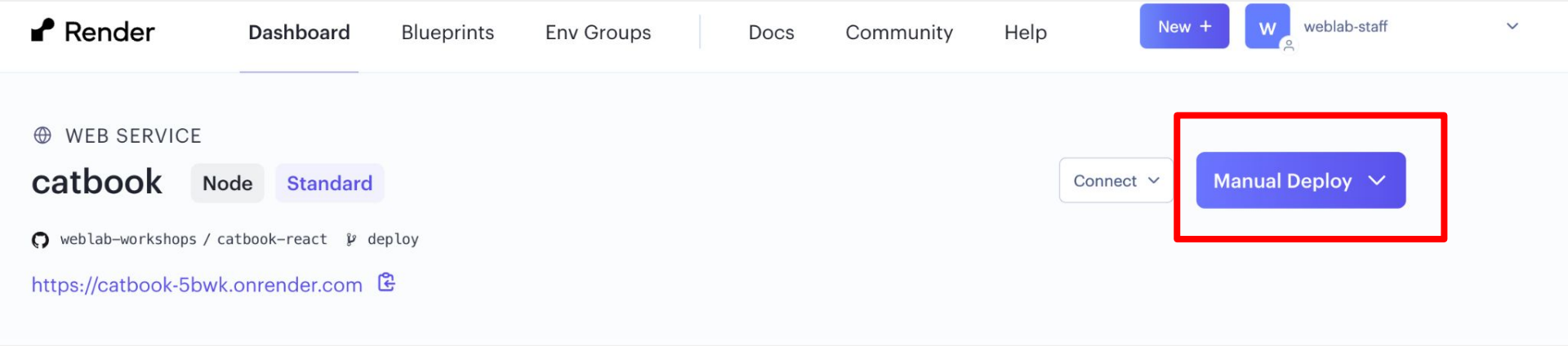
How to set environment variables on Render



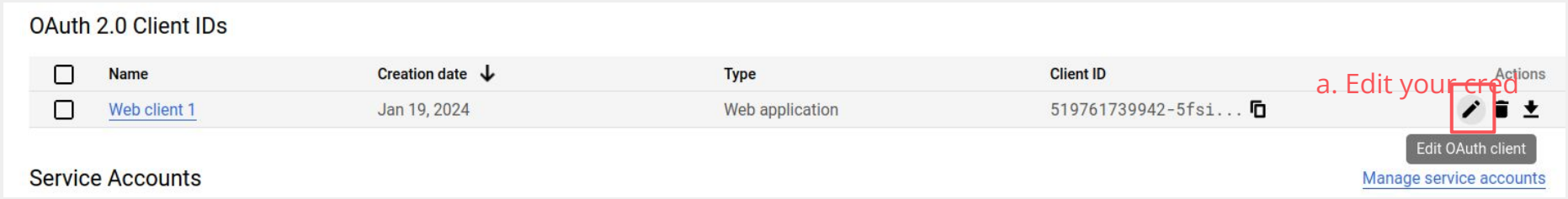
You can also upload your .env file here!

Deployment: again!

- After setting environment variables on Render, redeploy again!
  - Head to Render, dashboard for your web service, then click Manual Deploy.



Going back to Google Auth



Add your deployed URL from render

Make sure to add this, or you will not be able to log in on your deployed site!

Success! (hopefully)

Things might not work out.

Recap

- Link your app to Render through Github
- Create .env file and add to your .gitignore
  - Remember .env contains stuff that github should not know about
- Move sensitive data into the .env file
  - Including your mongo srv and session secret
  - Access them in backend code with process.env.VARIABLE_NAME
- Make sure Render knows about your .env variables
  - Open Environment on dashboard and put them in. You don’t need quotes for strings
- Click deploy

Now to the engineers behind Render!