

# **Deployment Guide – React/NodeJS Apps etc**

## **YOU HAVE TO USE NODE.JS 14.7.5**

**Tip:** Deploying to Heroku

**Tip:** Revisiting Google Cloud again for my assetmgtservice (**Signed up on 10/16/2022**)

**Tip:** Getting the solution run in a docker container

**Tip:** Pushing the image to Docker Public Registry – Original (The one below is better)

**Tip:** Pulling the image to Docker Public Registry (Working with doc exec – python- nano) \*\*\*\* Best one

**Tip:** Installing a React App with Apache on a MacBook

**Tip:** FINALLY TO THE CREATE REACT APP TO WORK WHEN DEPLOYING TO IIS (WITHOUT WEBPACK)

**Tip:** Deploying to Heroku

These steps are followed from my other two deployments

We modify our first three files as shown below:

```

default.json
config {
  mongoURI : "mongodb+srv://lione15116:Mag17615%40@cluster0.jwcnt.mongodb.net/Checkmate?retryWrites=true&w=majority"
  jwtSecretToken : "mysecrettoken"
}

package.json
{
  "description": "Check Mate Service (2022)",
  "main": "server.js",
  "scripts": {
    "start": "node server",
    "server": "nodemon server",
    "client": "npm start --prefix client",
    "dev": "concurrently \"npm run server\" \"npm run client\"",
    "heroku-postbuild": "NPM_CONFIG_PRODUCTION=false npm install --prefix client && npm run build --prefix client"
  },
  "author": "Lionel Jones",
  "license": "MIT",
  "dependencies": {
    "bcryptjs": "^2.4.3",
    "config": "^3.3.7",
    "cors": "^2.8.5",
    "express": "^4.18.1",
  }
}

```

TERMINAL

```
[1] You can limit the size of your bundles by using import() or require.ensure to lazy load some parts of your application.
[1] For more info visit https://webpack.js.org/guides/code-splitting/
[1]
```

Update (You have to use the –force) in the package.json, or Heroku will error out

```

{
  "name": "checkmateservice",
  "version": "1.0.0",
  "description": "Check Mate Service (2022)",
  "main": "server.js",
  "scripts": {
    "start": "node server",
    "server": "nodemon server",
    "client": "npm start --prefix client",
    "dev": "concurrently \"npm run server\" \"npm run client\"",
    "heroku-postbuild": "NPM_CONFIG_PRODUCTION=false npm install --force --prefix client && npm run build --prefix client"
  },
  "author": "Lionel Jones",
  "license": "MIT",
  "dependencies": [
    "bcryptjs": "^2.4.3",
    "config": "^3.3.7",
    "cors": "^2.8.5",
    "express": "^4.18.1",
    "express-validator": "^6.14.2",
    "gravatar": "1.8.2",
    "jsonwebtoken": "^8.5.1",
    "mongoose": "^6.4.6",
    "mongoose-unique-validator": "^3.1.0",
    "request": "^2.88.2"
  ],
  "devDependencies": {
    "concurrently": "^7.5.0",
    "nodemon": "^2.0.20"
  }
}

```

default.json

.gitignore

## package.json

See your AssetManagement2022 for the correct content

The Heroku tag we entered tells Heroku once we push it to Heroku to run `npm install` to install dependencies for each project and then run `npm run build` to build the project, and when it builds the project, it will put everything in the client folder of our project.

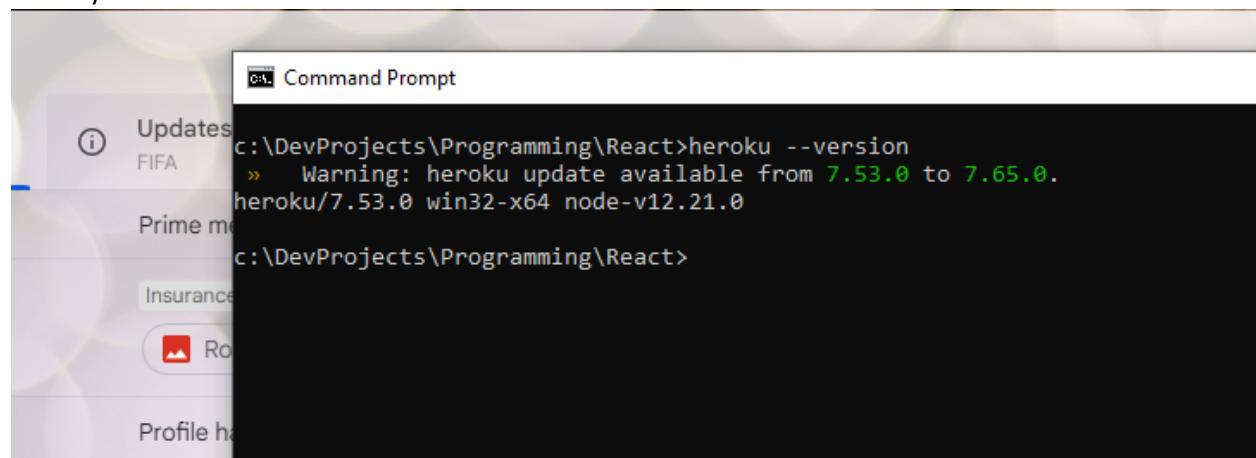
Then in your server.js file:

```
42 app.use('/api/rep', require('./routes/api/rep'));
43 //http://localhost:5500/api/receipt
44 app.use('/api/receipt', require('./routes/api/receipt'));
45
46
47 //Server static assets in production
48 if(process.env.NODE_ENV === 'production')
49 {
50     //Set static folder (our public folder)
51     app.use(express.static('client/dist'));
52     app.get('*',(req,res) => {
53         res.sendFile(path.resolve(__dirname,'client','dist','index.html'));
54     })
55 }
56
57
58 //HEROKU LOOKS AT THE process.env.PORT
59 const PORT = process.env.PORT || 5500;
60
```

Next at the terminal, do a Heroku login

Heroku login

Check your version



Next create an app

Heroku create

If you go to the dashboard, you will see the app

fierce-plains-03819

Next, go to your dashboard, click on your app  
Go to the deploy tab

Go to the deploy tab

Heroku Git  
Use Heroku CLI

GitHub  
Connect to GitHub

Container Registry  
Use Heroku CLI

Install the Heroku CLI

Download and install the [Heroku CLI](#)

If you haven't already, log in to your Heroku account and follow the prompts to create a new SSH public key.

\$ heroku login

Create a new Git repository

Initialize a git repository in a new or existing directory

\$ cd my-project/  
\$ git init  
\$ heroku git:remote -a fierce-plains-03819

Deploy your application

Commit your code to the repository and deploy it to Heroku using Git.

\$ git add .  
\$ git commit -am "make it better"  
\$ git push heroku master

You can now change your main deploy branch from "master" to "main" for both manual and automatic deploys, please follow the instructions [here](#).

copy the remote command  
heroku git:remote -a fierce-plains-03819

heroku git:remote -a fierce-plains-03819

heroku login

Command Prompt

Make sure you in your directory

A screenshot of the VS Code interface. The terminal tab is active, showing the following command-line session:

```
56 }
57
58
59 //HEROKU LOOKS AT THE process.env.PORT
60 const PORT = process.env.PORT || 5500;
61
62 app.listen(PORT, () => console.log(`Server started on port ${PORT}`));
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

```
[1] You can limit the size of your bundles by using import() or require.ensure to lazy load some parts of your application.
[1] For more info visit https://webpack.js.org/guides/code-splitting/
[1]
[1] webpack 5.39.1 compiled with 4 warnings in 39324 ms
[1] i ｢wdm｣: Compiled with warnings.
Terminate batch job (Y/N)? [1] Terminate batch job (Y/N)? Terminate batch job (Y/N)? npm run client exited with code 1
[0] npm run server exited with code 1
y
PS C:\DevProjects\Programming\React\CheckMate>
* History restored
```

Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
Try the new cross-platform PowerShell https://aka.ms/pscore6  
PS C:\DevProjects\Programming\React\CheckMate>

Cloud Code AssetMgmtServiceProject

Then type in the line from here:

A screenshot of a web-based deployment interface. A red circle highlights the command:

```
$ cd my-project/
$ git init
$ heroku git:remote -a fierce-plains-03819
```

Deploy your application

Commit your code to the repository and deploy it to Heroku using Git.

```
$ git add .
$ git commit -am "make it better"
$ git push heroku master
```

You can now change your main deploy branch from "master" to "main" for both manual and automatic deploys, please follow the instructions [here](#).

A screenshot of a terminal window. A red circle highlights the command:

```
e remote command
it:remote -a fierce-plains-03819
```

t:remote -a fierce-plains-03819

heroku login

and Prompt

```
objects\Programming\React\MernStackProject2022>heroku git:remote -a fierce-plains-03819
ning: heroku update available from 7.53.0 to 7.60.2.
remote heroku to https://git.heroku.com/fierce-plains-03819.git
objects\Programming\React\MernStackProject2022>
```

This adds a remote repo for Heroku

**Then do all of your regular commits locally**

```
git add -A  
git add .  
git commit -m "first commit"  
git push origin master
```

**Now push to Heroku**

```
git push Heroku master
```

After that, watch the build, it should succeed.

You can go to your Heroku dashboard and view your app and browse it.

**Tip:** Revisiting Google Cloud again for my assetmgtservice (**Signed up on 10/16/2022**)

This like talks about creating Node.js service to run google cloud

<https://cloud.google.com/run/docs/quickstarts/build-and-deploy/deploy-nodejs-service>

First create a google cloud account with a credit card

This link below is for creating a google cloud account

[https://console.cloud.google.com/freetrial?\\_ga=2.193936365.1372868959.1665875748-414377682.1665875748&\\_gac=1.215098085.1665883042.CjwKCAjwtKmaBhBMEiwAylNuwIdtGLj\\_yNP1d3kKhODtrcRzJm\\_tVv7Hw-HGx95ebry4AJSLSEnkhoChKcQAvD\\_BwE](https://console.cloud.google.com/freetrial?_ga=2.193936365.1372868959.1665875748-414377682.1665875748&_gac=1.215098085.1665883042.CjwKCAjwtKmaBhBMEiwAylNuwIdtGLj_yNP1d3kKhODtrcRzJm_tVv7Hw-HGx95ebry4AJSLSEnkhoChKcQAvD_BwE)

**Signed up on 10/16/2022**

I signed up using my Capital One Virtual Account (so I would not have to use my real account number)

I renamed the first project to:

AssetMgmtServiceProject

To rename the project information:

Click on Dashboard

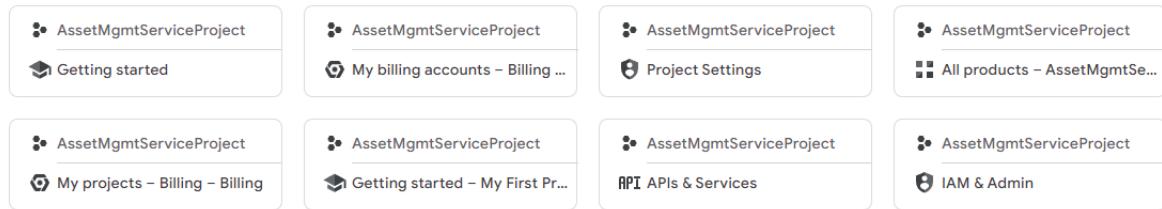
Project number:

[Dashboard](#) 

Project Settings

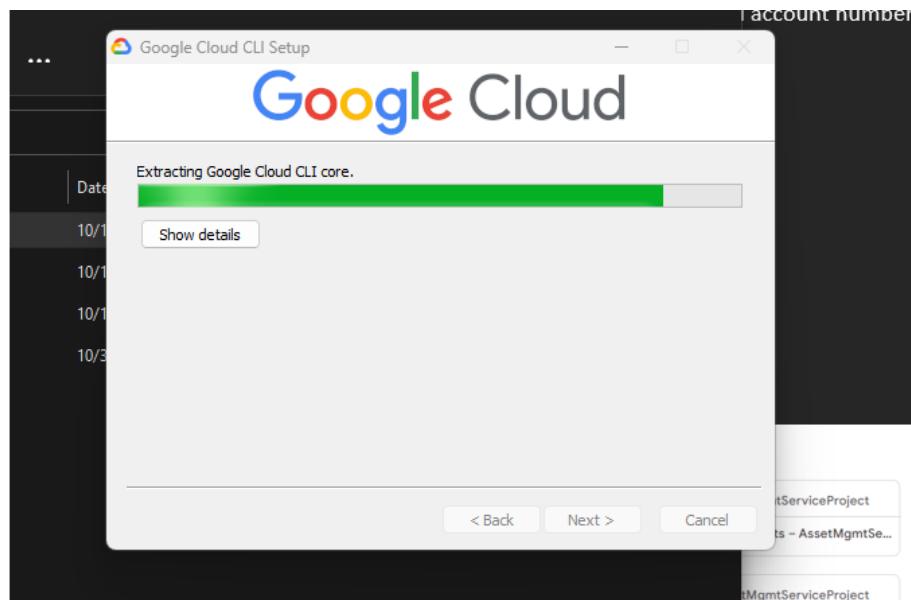
Or access it through Quick Access->Project Settings

## Quick access



Next you have to install the google CLI

<https://cloud.google.com/sdk/docs/install>



•  
Next make sure you initialize your gcloud  
<https://cloud.google.com/sdk/docs/initializing>

This is done automatically on windows after installation, it will run the wizard

```
C:\WINDOWS\SYSTEM32\cmd.exe

Pick cloud project to use:
[1] civic-brand-365722
[2] Enter a project ID
[3] Create a new project
Please enter numeric choice or text value (must exactly match list item): 1

Your current project has been set to: [civic-brand-365722].

Not setting default zone/region (this feature makes it easier to use
[gcloud compute] by setting an appropriate default value for the
--zone and --region flag).
See https://cloud.google.com/compute/docs/gcloud-compute section on how to set
default compute region and zone manually. If you would like [gcloud init] to be
able to do this for you the next time you run it, make sure the
Compute Engine API is enabled for your project on the
https://console.developers.google.com/apis page.

Created a default .boto configuration file at [C:\Users\lione\.boto]. See this file and
[https://cloud.google.com/storage/docs/gsutil/commands/config] for more
information about configuring Google Cloud Storage.
Your Google Cloud SDK is configured and ready to use!

* Commands that require authentication will use lioneljones5116@gmail.com by default
* Commands will reference project `civic-brand-365722` by default
Run `gcloud help config` to learn how to change individual settings

This gcloud configuration is called [default]. You can create additional configurations if you work with multiple accounts and/or projects.
Run `gcloud topic configurations` to learn more.

Some things to try next:

* Run `gcloud --help` to see the Cloud Platform services you can interact with. And run `gcloud help COMMAND` to get help on any gcloud command.
* Run `gcloud topic --help` to learn about advanced features of the SDK like arg files and output formatting
* Run `gcloud cheat-sheet` to see a roster of go-to `gcloud` commands.

C:\Program Files (x86)\Google\Cloud SDK>
```

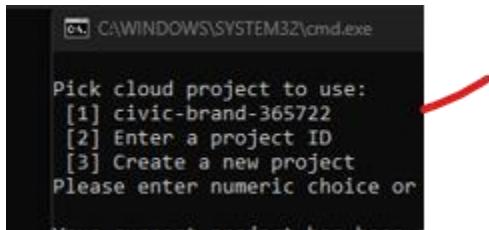
But on Mac M1

You install gcloud via .sh file from a zipped extract. After you have installed on m1

You have to run the following command:

**gcloud init**

And you will get the same window as above, you initialize your gcloud with a valid project. This is the project I created earlier.



You can also set the default project with following command:  
**gcloud config set project *PROJECT\_ID***

I am not going to follow the rest of the guide because I want to download my project from GitHub

But If wanted to deploy a simple service, I could have just copied and pasted sample code and ran the code below:

Deploy from source automatically builds a container image from source code and deploys it.

To deploy from source:

1. In your source code directory, deploy from source using the following command:

```
gcloud run deploy
```

If prompted to enable the API, Reply **y** to enable.

The next link below is the one I am going to use:

<https://levelup.gitconnected.com/how-to-deploy-your-node-js-app-with-google-2cd3771d5b21>

Next we will create and application to place our code in:

Hit the burger menu and select app engine

≡ Google Cloud AssetMgmtServiceProject ▾

- Cloud overview >
- Recent >
- View all products**

PINNED

Pin your top products here

MORE PRODUCTS ▾

- COMPUTE
  - Compute Engine >
  - Kubernetes Engine >
  - VMware Engine
  - Workload Manager **NEW**
  - Batch
  - Distributed Cloud >
- SERVERLESS
  - Cloud Run
  - Cloud Functions
  - App Engine >
- STORAGE
  - Filestore >
  - Cloud Storage >

90°F Sunny



You're working on

Project number

Dashboard

Quick access

Asset Management

My billing

Asset Management

All products

View all products

You will be prompted to create an app

Select a region

The next window opens up, select Node.js

Get started

**Resources**

Language: Node.js

Environment: Standard

Read App Engine Node.js Standard Environment [Documentation](#)

Visit [Github](#) for Node.js Standard Environment code samples.

**Deploy with Google Cloud SDK**

[DOWNLOAD THE CLOUD SDK](#)

Initialize your SDK

```
$ gcloud init
```

Deploy to App Engine

```
$ gcloud app deploy
```

I'LL DO THIS LATER

You can select I'll do this later

Once you come back by selecting App Engine:

## Welcome to App Engine

Build scalable apps in any language on Google's infrastructure

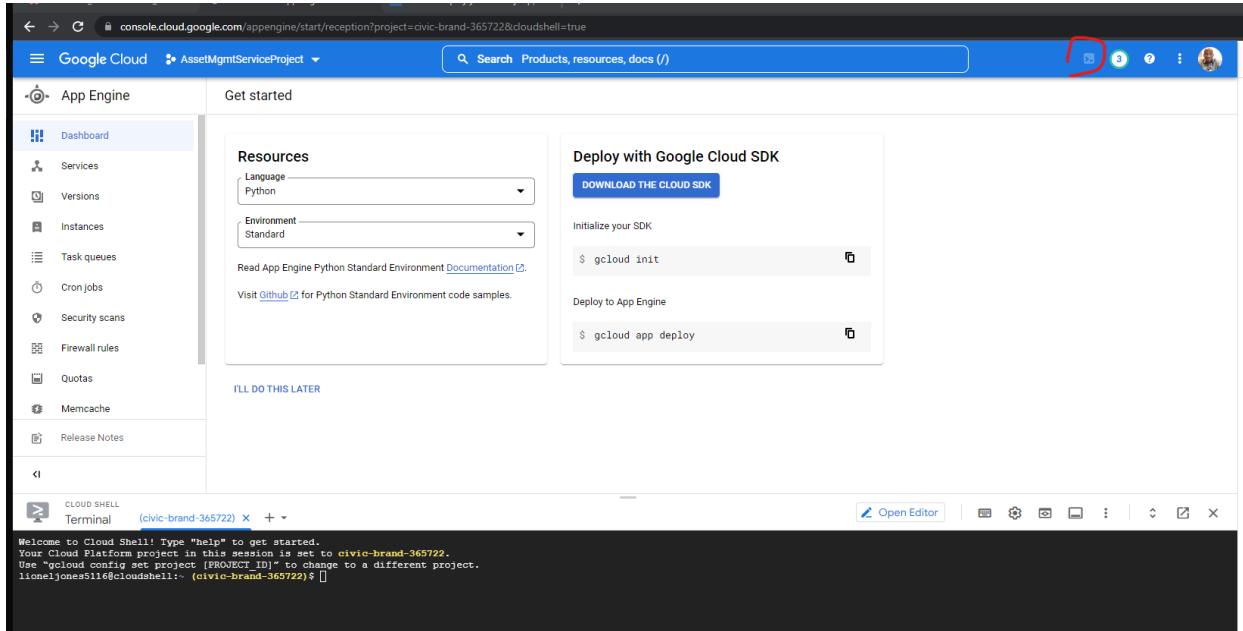
✓ Your App Engine application has been created

Let us [help you deploy to your application](#) by pointing you at the relevant resources based on your programming language.

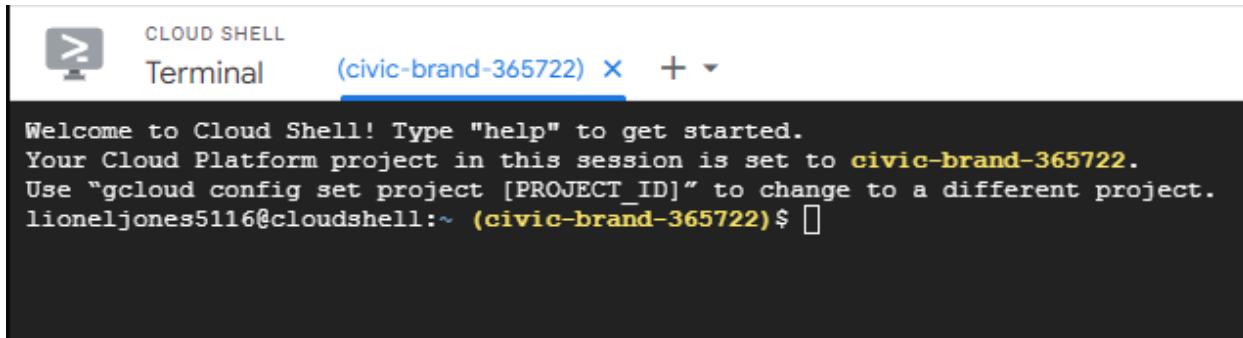
[GET STARTED](#)

When you hit get started, it will take you back to the screen above where you select Node.js etc..

When you get to the next window again, hit the console icon on gcloud (you can do this at the command prompt or using the gcloud shell on the web)

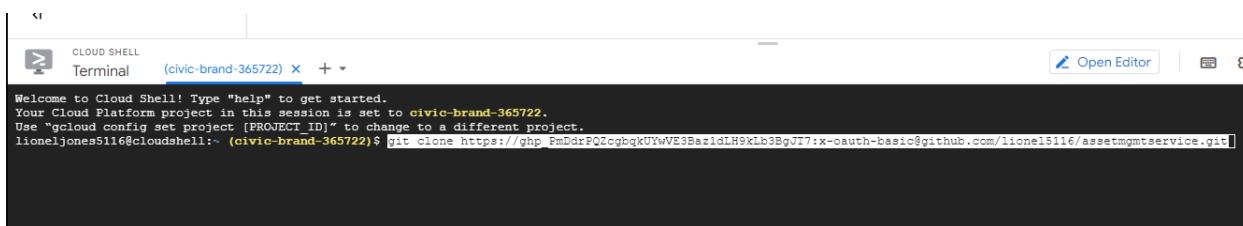


Make sure that you are in the correct project:



Then clone your repo:

```
git clone https://github.com/lioneljones5116/assetmgmtservice.git
```



```
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to civic-brand-365722.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
lioneljones5116@cloudshell:~ (civic-brand-365722)$ git clone https://ghp_FmDdrPQZcgbqkUYwVE3Baz1dLH9kLb3BgJT7:x-oauth-basic@git
Cloning into 'assetmgmtservice'...
remote: Enumerating objects: 66, done.
remote: Counting objects: 100% (12/12), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 66 (delta 6), reused 12 (delta 6), pack-reused 54
Receiving objects: 100% (66/66), 37.04 MiB | 40.23 MiB/s, done.
Resolving deltas: 100% (27/27), done.
lioneljones5116@cloudshell:~ (civic-brand-365722)$ ls -al
total 56
drwxr-xr-x 9 lioneljones5116 lioneljones5116 4096 Oct 16 23:24 .
drwxr-xr-x 4 root      root      4096 Sep  1 16:35 ..
drwxr-xr-x 7 lioneljones5116 lioneljones5116 4096 Oct 16 23:24 assetmgmtservice
-rw----- 1 lioneljones5116 lioneljones5116 358 Oct 16 23:24 .bash_history
-rw-r--r-- 1 lioneljones5116 lioneljones5116 220 Jan  1 1970 .bash_logout
-rw-r--r-- 1 lioneljones5116 lioneljones5116 3564 Aug 24 07:14 .bashrc
drwxr-xr-x 3 lioneljones5116 lioneljones5116 4096 Sep  1 16:35 .cache
drwxr-xr-x 3 lioneljones5116 lioneljones5116 4096 Sep  1 16:35 cloudshell_open
drwxr-xr-x 3 lioneljones5116 lioneljones5116 4096 Aug 24 07:04 .config
drwxr-xr-x 2 lioneljones5116 lioneljones5116 4096 Sep  1 16:35 .docker
-rw-r--r-- 1 lioneljones5116 lioneljones5116 807 Jan  1 1970 .profile
-rw-r--r-- 1 lioneljones5116 lioneljones5116 913 Oct 16 23:22 README-cloudshell.txt
drwxr-xr-x 2 lioneljones5116 lioneljones5116 4096 Sep  1 16:35 .redhat
drwxr-xr-x 6 lioneljones5116 lioneljones5116 4096 Sep  1 16:35 .theia
lioneljones5116@cloudshell:~ (civic-brand-365722)$ 
```

Navigate to your project folde and do an npm install

Make sure that your language says NodeJs

The screenshot shows the Google Cloud Platform dashboard. On the left, there's a sidebar with 'App Engine' and 'Dashboard' tabs. Under 'Dashboard', there are sections for 'Services', 'Versions', and 'Release Notes'. In the main area, there's a 'Resources' section with dropdown menus for 'Language' (set to 'Node.js') and 'Environment' (set to 'Standard'). To the right, there's a 'Deploy with Google Cloud SDK' section with a 'DOWNLOAD THE CLOUD SDK' button and a 'Initialize your SDK' link. Below that is a terminal window titled 'CLOUD SHELL' with the command 'Terminal (civic-brand-365722)'. The terminal output shows a file listing for 'assetmgmtservice'.

```
lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)$ ls -al
total 22136
drwxr-xr-x  8 lioneljones5116 lioneljones5116 4096 Oct 16 23:26 .
drwxr-xr-x 10 lioneljones5116 lioneljones5116 4096 Oct 16 23:25 ..
-rw-r--r--  1 lioneljones5116 lioneljones5116 16076893 Oct 16 23:24 AssetMgmtService_V2.docx
-rw-r--r--  1 lioneljones5116 lioneljones5116 6352285 Oct 16 23:24 AssetMgmtService_V2.pdf
drwxr-xr-x  2 lioneljones5116 lioneljones5116 4096 Oct 16 23:24 config
-rw-r--r--  1 lioneljones5116 lioneljones5116 630 Oct 16 23:24 Dockerfile
-rw-r--r--  1 lioneljones5116 lioneljones5116 10749 Oct 16 23:24 EndPointExplanationsNodeJS.txt
drwxr-xr-x  8 lioneljones5116 lioneljones5116 4096 Oct 16 23:24 .git
-rw-r--r--  1 lioneljones5116 lioneljones5116 50 Oct 16 23:24 .gitignore
drwxr-xr-x  2 lioneljones5116 lioneljones5116 4096 Oct 16 23:24 middleware
drwxr-xr-x  2 lioneljones5116 lioneljones5116 4096 Oct 16 23:24 models
drwxr-xr-x 215 lioneljones5116 lioneljones5116 12288 Oct 16 23:26 node_modules
-rw-r--r--  1 lioneljones5116 lioneljones5116 617 Oct 16 23:24 package.json
-rw-r--r--  1 lioneljones5116 lioneljones5116 163194 Oct 16 23:26 package-lock.json
drwxr-xr-x  3 lioneljones5116 lioneljones5116 4096 Oct 16 23:24 routes
-rw-r--r--  1 lioneljones5116 lioneljones5116 1688 Oct 16 23:24 server.js
lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)$ 
```

You can open the editor (It's VSCODE),by clicking on OPEN EDITOR

The screenshot shows the Google Cloud Shell interface with the project "AssetMgmtServiceProject" selected. The left sidebar displays the file structure of the "assetmgmtservice" directory, which includes configuration files, middleware, models, routes, and several JSON files. The bottom section is a terminal window showing the output of the "ls -al" command:

```

lioneljones5116@cloudshell:~ (civic-brand-365722)$ ls -al
total 60
drwxr-xr-x 10 lioneljones5116 lioneljones5116 4096 Oct 16 23:25 .
drwxr-xr-x  4 root      root      4096 Sep  1 16:35 ..
-rw-r--r--  1 lioneljones5116 lioneljones5116 438 Oct 16 23:26 .bash_history
-rw-r--r--  1 lioneljones5116 lioneljones5116 220 Jan  1 1970 .bash_logout
-rw-r--r--  1 lioneljones5116 lioneljones5116 3564 Aug 24 07:14 .bashrc
drwxr-xr-x  3 lioneljones5116 lioneljones5116 4096 Sep  1 16:35 .cache
drwxr-xr-x  3 lioneljones5116 lioneljones5116 4096 Aug 24 07:04 .config
drwxr-xr-x  2 lioneljones5116 lioneljones5116 4096 Sep  1 16:35 .docker
drwxr-xr-x  4 lioneljones5116 lioneljones5116 4096 Oct 16 23:26 .npm
-rw-r--r--  1 lioneljones5116 lioneljones5116 807 Jan  1 1970 .profile
drwxr-xr-x  2 lioneljones5116 lioneljones5116 4096 Sep  1 16:35 .redhat
drwxr-xr-x  6 lioneljones5116 lioneljones5116 4096 Sep  1 16:35 .theia
-rw-r--r--  1 lioneljones5116 lioneljones5116 913 Oct 16 23:30 README-cloudshell.txt
drwxr-xr-x  8 lioneljones5116 lioneljones5116 4096 Oct 16 23:26 assetmgmtservice
drwxr-xr-x  3 lioneljones5116 lioneljones5116 4096 Sep  1 16:35 cloudshell_open
lioneljones5116@cloudshell:~ (civic-brand-365722)$ 

```

From here you can do everything just like with the terminal, just select “Terminal” new terminal as above (IT’s VS CODE remember)

You don’t need to run an npm run build (this is node.js service). There is no build

Run npm start

CLOUD SHELL

Editor

File Edit Selection View Go Run Terminal Help

EXPLORER

> OPEN EDITORS

< LIONELJONES5116

< assetmgmtservice

> config

> middleware

> models

> node\_modules

> routes

< AssetMgmtService\_V2.docx

< AssetMgmtService\_V2.pdf

< Dockerfile

< EndPointExplanationsNodeJS.txt

< package-lock.json

< package.json

< server.js

> cloudshell\_open

< README-cloudshell.txt

package.json

```
1  {
2      "name": "assetmgmtservice",
3      "version": "1.0.0",
4      "description": "Asset Management (Service 2022)",
5      "main": "server.js",
6          "Debug"
7      "scripts": {
8          "start": "node server"
9      },
10     "author": "Lionel Jones",
11     "license": "MIT",
12     "dependencies": {
13         "bcryptjs": "^2.4.3",
14         "config": "^3.3.7",
15         "cors": "^2.8.5",
16         "express": "4.18.1",
17         "express-validation": "^6.14.2",
18         "gravatar": "^1.8.2",
19         "jsonwebtoken": "^8.5.1",
20         "mongoose": "^6.4.6",
21         "mongoose-unique-validator": "^3.1.0",
22     }
23 }
```

Problems

civic-brand-365722

lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)\$ npm start

And it's running:

The screenshot shows the Google Cloud Shell Editor interface. The left sidebar displays a file tree for a project named 'LIONELJONES5116' containing an 'assetmgmtservice' folder with files like 'config', 'middleware', 'models', 'routes', 'AssetMgmtService\_V2.docx', 'AssetMgmtService\_V2.pdf', 'Dockerfile', 'EndPointExplanationsNodeJS.txt', 'package-lock.json', 'package.json', and 'server.js'. The right pane shows the 'package.json' file content:

```
1  {
2    "name": "assetmgmtservice",
3    "version": "1.0.0",
4    "description": "Asset Management (Service 2022)",
5    "main": "server.js",
6    "scripts": {
7      "start": "node server"
8    },
9    "author": "Lionel Jones",
10   "license": "MIT",
11   "dependencies": {
12     "bcryptjs": "^2.4.3",
13     "config": "^3.3.7",
14     "cors": "^2.8.5",
15     "express": "^4.18.1",
16     "express-validator": "^6.14.2",
17     "gravatar": "^1.8.2",
18     "jsonwebtoken": "^8.5.1",
19     "mongoose": "^6.4.6",
20     "mongoose-unique-validator": "^3.1.0",

```

Below the code editor, the terminal window shows the command being run:

```
lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)$ npm start
> assetmgmtservice@1.0.0 start
> node server

Server started on port 5500
MongoDB Connected...
```

Now to deploy:

**gcloud app deploy**

If you get an error

```

19      "mongoose": "^6.4.6",
20      "mongoose-unique-validator": "^3.1.0",

```

Problems civic-brand-365722

```

lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)$ gcloud app deploy
ERROR: An app.yaml (or appengine-web.xml) file is required to deploy this directory as an App Engine application. Create an app.yaml file using the directions at https://cloud.google.com/appengine/docs/flexible/python/configuring-your-app-with-app-yaml (App Engine flexible environment) or https://cloud.google.com/appengine/docs/standard/python/config/appref (App Engine standard environment) under the tab for your language.
ERROR: (gcloud.app.deploy) [/home/lioneljones5116/assetmgmtservice] could not be identified as a valid source directory or file.
lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)$

```

This means you need to create an app.yaml file

use the command touch app.yaml to create a file

<https://cloud.google.com/appengine/docs/standard/reference/app-yaml?tab=node.js>

Place the minimal code in as shown below and comment out the rest

```

CLOUD SHELL Editor File Edit Selection View Go Run Terminal Help
EXPLORER ... app.yaml X
assetmgmtservice > app.yaml > ...
1 runtime: nodejs16 # or another supported version
2
3
4 env_variables:
5 #BUCKET_NAME: "example-gcs-bucket"
6
7 handlers:
8 #- url: /stylesheets
9 | # static_dir: stylesheets
10
11 #- url:.*/
12 | # secure: always
13 | # redirect_http_response_code: 301
14 | #script: auto

```

Problems civic-brand-365722

```

lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)$ gcloud app deploy

```

Problems civic-brand-365722

```

lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)$ node -v
v16.4.0
lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)$ gcloud app deploy

```

Check your version, then re-run the gcloud app deploy

Here is the log:

<https://console.cloud.google.com/cloud-build/builds;region=us-central1/e214f552-fb08-4f7f-8351-d30a6d827879?project=497267468698>

<https://console.cloud.google.com/cloud-build/builds;region=us-central1/e214f552-fb08-4f7f-8351-d30a6d827879?project=497267468698>

So I ran it again, and it deployed:

```
U   o  ## url: /stylesheets
  9  | # static_dir: stylesheets
10
⚠ Problems  ⚡ civic-brand-365722 ×
lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)$ gcloud app deploy
Services to deploy:
$ .txt
M descriptor:           [/home/lioneljones5116/assetmgmtservice/app.yaml]
source:                 [/home/lioneljones5116/assetmgmtservice]
target project:         [civic-brand-365722]
target service:         [default]
target version:         [20221016t235448]
target url:             [https://civic-brand-365722.uc.r.appspot.com]
target service account: [App Engine default service account]

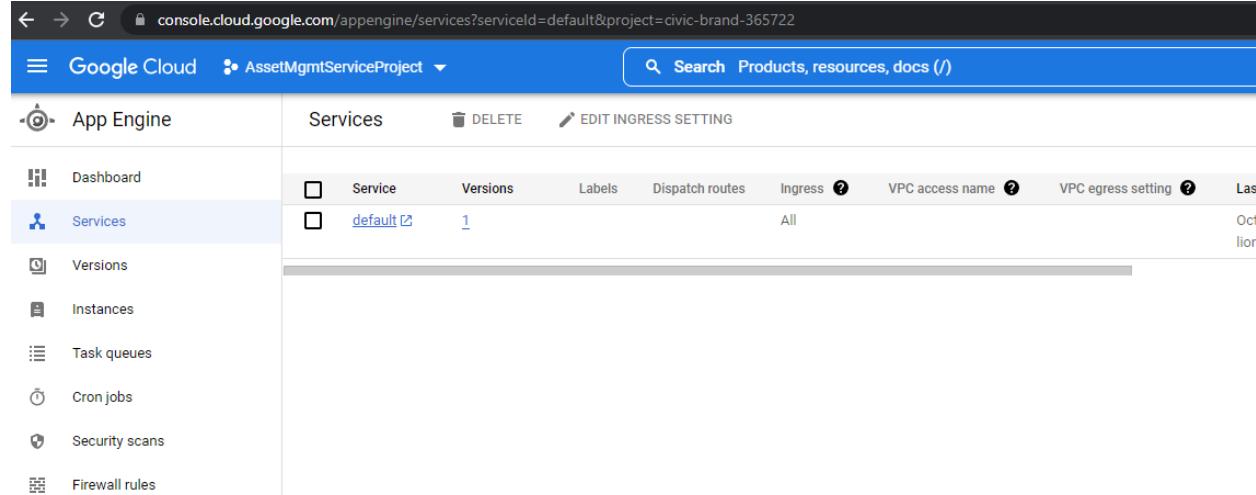
Do you want to continue (Y/n)?  y

Beginning deployment of service [default]...
Uploading 0 files to Google Cloud Storage
100%
File upload done.
Updating service [default]...done.
Setting traffic split for service [default]...done.
Deployed service [default] to [https://civic-brand-365722.uc.r.appspot.com]

You can stream logs from the command line by running:
$ gcloud app logs tail -s default

To view your application in the web browser run:
$ gcloud app browse
lioneljones5116@cloudshell:~/assetmgmtservice (civic-brand-365722)$
```

I went back to app engine:



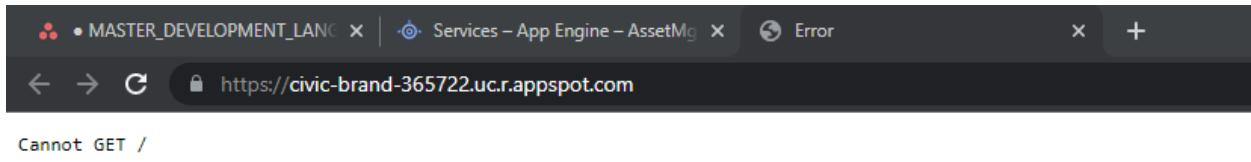
The screenshot shows the Google Cloud App Engine Services page. The sidebar on the left lists options: Dashboard, Services (which is selected and highlighted in blue), Versions, Instances, Task queues, Cron jobs, Security scans, and Firewall rules. The main content area shows a table for the 'Services' section. The table has columns: Service, Versions, Labels, Dispatch routes, Ingress, VPC access name, VPC egress setting, and Last modified. There is one row for the 'default' service, which has 1 version. The 'Ingress' column shows 'All'. The 'Last modified' column shows 'Oct 10'. At the top of the main content area, there are buttons for 'DELETE' and 'EDIT INGRESS SETTING'.

Service	Versions	Labels	Dispatch routes	Ingress	VPC access name	VPC egress setting	Last modified
default	1			All			Oct 10

Clicked on the link

<https://civic-brand-365722.uc.r.appspot.com/>

The error is not an error, this is a service without a page



Now I am going to postman

<https://civic-brand-365722.uc.r.appspot.com/api/travel/searchTravelRecord>

What's interesting, it handles the port 5500 internally

You can check the logs:

A screenshot of the Google Cloud Platform Services dashboard. On the left, there is a table with columns for Labels, Dispatch routes, Ingress, VPC access name, VPC egress setting, Last version deployed (with a dropdown arrow), and Diagnose. The "Last version deployed" row shows "Oct 16, 2022, 6:56:01 PM by lioneljones5116@gmail.com". To the right of the table, there is a sidebar titled "Select a service" with tabs for ACTIVITY and LABELS. Under ACTIVITY, there is a list of logs from today: "Completed: Update App Engine..." and "Update App Engine module". A tooltip "I'm new here" is visible at the bottom right of the sidebar.

Google Cloud AssetMgmtServiceProject

Logs Explorer

REFINE SCOPE Project

Query Recent (1) Saved (0) Suggested (0) Library

Last 1 hour Search all fields

1 resource.type="gae\_app"  
2 resource.labels.module\_id="default"

Log fields Histogram

Log fields

Search fields and values

RESOURCE TYPE GAE Application Clear X

SEVERITY Default 15 Notice 6 Info 1

LOG NAME /var/log/google\_init.log 12 cloudaudit.googleapis.com/activity 6 appengine.googleapis.com/request\_log 2 stdout 2

PROJECT ID civic-brand-365722 22

MODULE ID default Clear X

VERSION ID 20221016t235448 18 Value not present 2 20221016t234401 2

Histogram

Oct 16, 6:03 PM 6:30 PM Oct 16, 7:04 PM

Query results 22 log entries

SEVERITY	TIMESTAMP	CDT	SUMMARY
> *	2022-10-16 18:56:13.618 CDT		appengine.googleapis.com ..._appengine.v1.Services.UpdateService ..._apps/civic-brand-365722/services/default ..._line
> *	2022-10-16 18:56:15.050 CDT		appengine.googleapis.com ..._appengine.v1.Services.UpdateService ..._apps/civic-brand-365722/services/default ..._line
> *	2022-10-16 18:58:17.864 CDT	GET 404	459 B 3.667 s ... Chrome 106.0. ... /
> *	2022-10-16 18:58:18.519 CDT	[start]	2022/10/16 23:58:18.518S15 No entrypoint specified, using default entrypoint: /serve
> *	2022-10-16 18:58:18.521 CDT	[start]	2022/10/16 23:58:18.519S1 Starting app
> *	2022-10-16 18:58:18.521 CDT	[start]	2022/10/16 23:58:18.519S3 Executing: /bin/sh -c exec /serve
> *	2022-10-16 18:58:18.522 CDT	[start]	2022/10/16 23:58:18.522S10 Waiting for network connection open. Subject:"app/invalid" Address:127.0.0.1:8080
> *	2022-10-16 18:58:18.522 CDT	[start]	2022/10/16 23:58:18.522S46 Waiting for connection open. Subject:"app/valid" Address:127.0.0.1:8081
> *	2022-10-16 18:58:18.556 CDT	[serve]	2022/10/16 23:58:18.543S68 Serve started.
> *	2022-10-16 18:58:18.551 CDT	[serve]	2022/10/16 23:58:18.550S25 Args: {runtimeLanguage:nodejs runtimeName:nodejs16 memoryMb:256 positional:[{}]}
> *	2022-10-16 18:58:18.558 CDT	[serve]	2022/10/16 23:58:18.556S48 Running /bin/sh -c exec node server
> *	2022-10-16 18:58:21.436 CDT		Server started on port 8081
> *	2022-10-16 18:58:21.439 CDT	[start]	2022/10/16 23:58:21.438S96 Wait successful. Subject:"app/valid" Address:127.0.0.1:8080 Attempts:583 Elapsed:21.398
> *	2022-10-16 18:58:21.439 CDT	[start]	2022/10/16 23:58:21.439S74 Starting nginx
> *	2022-10-16 18:58:21.444 CDT	[start]	2022/10/16 23:58:21.442S80 Waiting for network connection open. Subject:"nginx" Address:127.0.0.1:8080
> *	2022-10-16 18:58:21.464 CDT	[start]	2022/10/16 23:58:21.464S93 Wait successful. Subject:"nginx" Address:127.0.0.1:8080 Attempts:4 Elapsed:21.398
> *	2022-10-16 18:58:21.966 CDT		MongoDB Connected...
> *	2022-10-16 19:01:34.373 CDT	POST 200	6.02 Kib 111 ms ... PostmanRunti... /api/travel/searchTravelRecord

Chosen time from 10/16/22 6:03 PM to 10/16/22 7:04 PM

Explore

Search Postman

Port https://civic-brand-365722.uc.r.appspot.com/api/travel/searchTravelRecord

POST https://civic-brand-365722.uc.r.appspot.com/api/travel/searchTravelRecord

Params Authorization Headers (8) Body Pre-request Script Tests Settings

Body Cookies Headers (12) Test Results

Pretty Raw Preview Visualize JSON

```
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[{"travel": [{"_id": "62e92e77d860bb8194e970f5", "Destination": "Costa Rica", "Year": "2019", "TravelDate": "7/19/2019", "Airline": "United", "Hotel": "Taormina", "BookingCode": "EZS9V6", "APCode": "SJO", "ItineraryFlight": "7451361251317", "ItineraryHotel": "7451361251317", "Status": "COMPLETE", "FlightCost": 250, "HotelCost": 866, "GirCost": 730, "TotalCost": 1836, "Rating": "EXCELLENT", "Notes": "Awsome trip. hit wayy too many.. but will definately repeat/ and this works", "__v": 0}, {"_id": "62e92ed3d860bb8194e970f9", "Destination": "Colombia", "Year": "2020", "TravelDate": "7/19/2020", "Airline": "South American", "Hotel": "Cartagena", "BookingCode": "EZS9V6", "APCode": "SJO", "ItineraryFlight": "7451361251317", "ItineraryHotel": "7451361251317", "Status": "PENDING", "FlightCost": 250, "HotelCost": 866, "GirCost": 730, "TotalCost": 1836, "Rating": "EXCELLENT", "Notes": "Awsome trip. hit wayy too many.. but will definately repeat/ and this works", "__v": 0}]}]
```

AND IT WORKS!!!!

## Tip: Getting the solution run in a docker container

The screenshot shows the VS Code interface with the following details:

- File Explorer:** Shows a project named "CHECKMATEV2" containing several folders and files:
  - client (with node\_modules, public, src, .env, .gitignore, package-lock.json, package.json, README.md)
  - config
  - middleware
  - models
  - node\_modules
  - routes (with .gitignore, ~\$eckMateV2.docx, app.yaml, CheckMateV2.docx)
  - Dockerfile
  - package-lock.json
  - package.json
  - server.js
- Code Editor:** Displays the Dockerfile content. The code is as follows:

```
1 #A
2 FROM node:16
3 #copy over main server file
4 #B
5 COPY server.js /server.js
6 #COPY package*.json ./
7 #E
8 EXPOSE 5500 3000
9 #C copy directories for client
10 COPY client/ /client
11 #copy directories for service
12 #C
13 COPY config/ /config
14 COPY middleware/ /middleware
15 COPY models/ /models
16 COPY routes/ /routes
17 #F npm install on server
18 RUN npm install
19 #F npm install on the client
20 RUN npm install --force --prefix client
21 RUN npm run build --prefix client
22 #D
23 #ENTRYPOINT ["npm", "start"]
24 #ENTRYPOINT ["node", "server.js"]
25 ENTRYPOINT ["npm", "run", "dev"]
26 #A The base image to build upon
```

Notice line 13, this is how you expose both ports

3000 is for the client app

5500 is for the NodeJS app

Line 16 is copying the client folder's contents

line 30 ad 31 runs the install and build of the react app

line 36 runs your custom command – (npm run dev)

To run the image

```
lioneljones@MacBookAirM1 ~ % docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
checkmateappv2  latest   7a5366aa0d04  33 seconds ago  1.4GB
assetmgmtsvc   latest   5ed50c8e47cb  12 days ago   902MB
lioneljones@MacBookAirM1 ~ % docker run --name checkmateappv2-container -p 3000:3000 -p 5500:5500 -d checkmateappv2
d50b54f5f3428acc28cd53e4fc14534d7b97778a5dc5835cae3ea19cbb9f76d
lioneljones@MacBookAirM1 ~ % docker container ps
CONTAINER ID  IMAGE      COMMAND      CREATED      STATUS      PORTS      NAMES
lioneljones@MacBookAirM1 ~ % docker run --name checkmateappv2-container -p 3000:3000 -p 5500:5500 -d checkmateappv2
869ace6b2ca1a57fca5f030c99434a1dc5775f2b6cc255a65edd4a9fb07363e1
lioneljones@MacBookAirM1 ~ % docker run --name checkmateappv2-container -p 3000:3000 -p 5500:5500 -d checkmateappv2
6ee37b18d2f490e5fa36ee801df687a9fd4d16e74f2cbc1e17c0ed135ee62276
lioneljones@MacBookAirM1 ~ %
```

To run the image

```
docker run --name checkmateappv2-container -p 3000:3000 -p 5500:5500 -d checkmateappv2
```

The screenshot shows the Docker web interface with the following details:

- Containers** [Give Feedback](#)
- A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)
- Showing 1 items
- Search bar:  Search
- Table headers: NAME, IMAGE, STATUS, PORT(S), STARTED, ACTIONS
- Table data:

NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
checkmateappv2-container 6ee37b18d2f4	checkmateappv2:latest	Running	3000,5...	2 minutes ago	

And it works

localhost:3000#/SearchPharma

Check Mate Home Medical Office Locations ▾ Physicians Records ▾ Managers Reps Receipts ▾ Reports ▾ Administration REDUX AUTH TEST

## Search Pharmaceutical Companies

**Enter Search Criteria**

All			
Email	Name		
<input type="text" value="Enter Email"/>	<input type="text" value="Name"/>		
<b>Search Records</b>			

---

**Search Results**

_id	Name	Phone	Email	Edit	Delete
63549190fe74bf00a27dcfa5	Memorial Health	713-654-0987	mmhealth@gmail.com		
6354a04dd5e97ead84326278	Herman Hospital System	713-876-0987	corsonmemorial@gmail.com		

10 ▾ Showing rows 1 to 2 of 2
1

To run your image

```
docker run --name checkmateappv2-container -p 3000:3000 -p 5500:5500 -d
checkmateappv2
```

```
docker inspect checkmateappv2-container
```

To grab the id only

```
docker inspect --format="{{.Id}} checkmateappv2-container
```

But I get an error (need to research this)

To remove your image

```
docker rm 6ee37b18d2f490e5fa36ee801df687a9fd4d16e74f2cbc1e17c0ed135ee62276
```

Below is the end user process

If you already have a container that you ran. Then you stopped and restarted your machine. The container maintains its id and configuration. You will see it below

Docker Desktop Images on disk

Last refresh: less than a minute ago

2 images 2.31 GB total size 1.4 GB / 2.31 GB in use

**Images** Give Feedback

**LOCAL** REMOTE REPOSITORIES

Search

In use only

NAME	TAG	IMAGE ID	CREATED	SIZE
assetmgmtsvc	latest	5ed50c8e47cb	12 days ago	902.43 MB
checkmateappv2	IN USE	62b427cecc78	about 2 hours ago	1.4 GB

Docker Desktop Upgrade plan

Containers Give Feedback

A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)

Showing 1 items

Search

NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
checkmateappv2-container 61911b4c8195	checkmateappv2:latest	Exited (255)	3000,5...		

Just hit the start button

Docker Desktop Upgrade plan

Containers Give Feedback

A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)

Showing 1 items

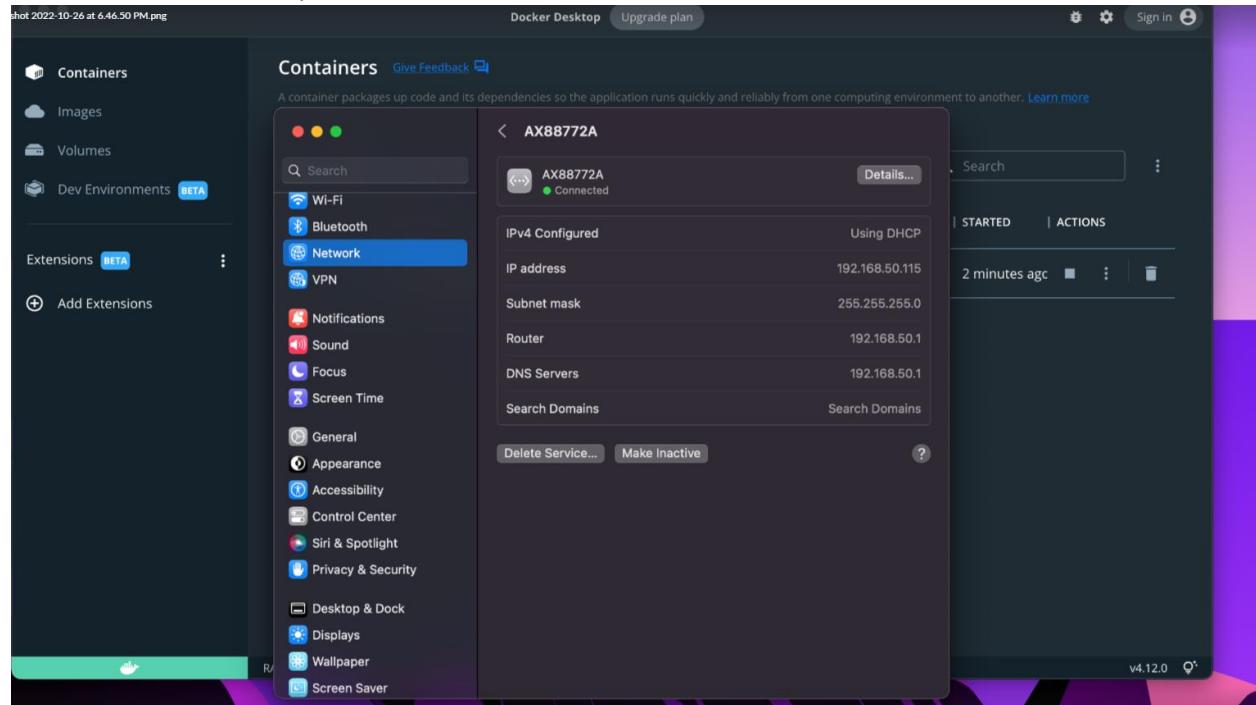
Search

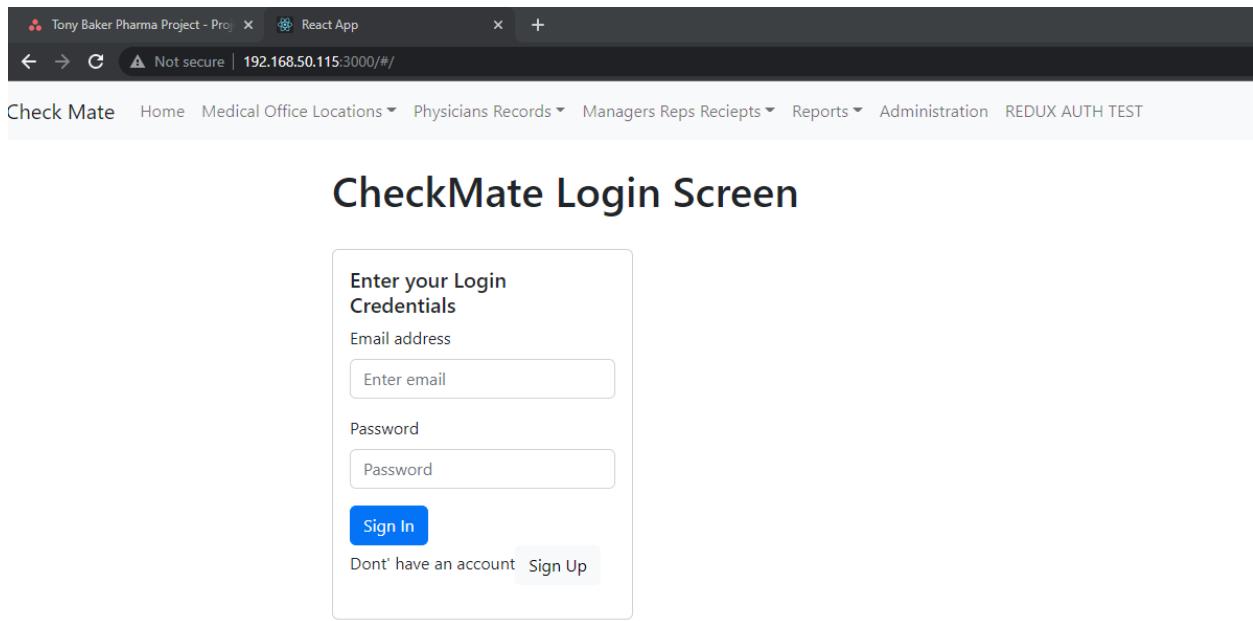
NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
checkmateappv2-container 61911b4c8195	checkmateappv2:latest	Running	3000,5...	13 seconds ago	

And as you can see below, it still has its settings

```
lioneljones@MacBookAirM1 ~ % docker container ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
6191b4c8195 checkmateappv2 "npm run dev" 28 minutes ago Up 21 seconds 0.0.0.0:3000->3000/tcp, 0.0.0.0:5500->5500/tcp checkmateappv2-container
lioneljones@MacBookAirM1 ~ %
```

Then I did a test from my MAC at home:





But it's looking at localhost  
Now if you wanted to use the service  
This works:

POST http://192.168.50.115:5500/api/pharma/searchPharmaRecord

**Body**

```

1 {
2   "Name": "Memorial Health",
3   "Email": "mmhealth@gmail.com",
4   "SearchType": "Name"
5 }

```

**Body Results**

```

1 {
2   "pharma": [
3     {
4       "_id": "63549190fe74bf00a27dcfa5",
5       "Name": "Memorial Health",
6       "Phone": "713-654-0987",
7       "Email": "mmhealth@gmail.com",
8       "Password": "1234567",
9       "Notes": "Good Pharma Company and I will stay employed with them",
10      "__v": 0
11    }
12  ]
13 }

```

But the app itself points to localhost (meaning that it thinks it's looking itself)

**Tip:** Pushing the image to Docker Public Registry

First you have to tag your image

docker tag checkmateappv2 lionel5116/checkmateappv2:0.1

Then login to docker:

docker login -u lionel5116 docker.io

Then to push to the docker public registry

docker push lionel5116/checkmateappv2:0.1

When you tag the image, it creates another (pointer) to the same image (not a copy)

The screenshot shows the Docker Desktop interface with the 'Images' tab selected. The sidebar on the left includes 'Containers', 'Images' (which is the active tab), 'Volumes', 'Dev Environments (BETA)', 'Extensions (BETA)', and an 'Add Extensions' button. The main area displays a table of local images:

NAME	TAG	IMAGE ID	CREATED	SIZE
assetmgmtsvc	latest	5ed50c8e47cb	18 days ago	902.43 MB
checkmateappv2	IN USE	ed69509d5803	about 19 hours ago	1.4 GB
lionel5116/checkmateap...	IN USE	0.1	ed69509d5803	about 19 hours ago

At the bottom of the interface, there is a status bar showing 'RAM 0.15GB', 'CPU 0.25%', and 'Connected to Hub'. The Docker icon in the top right corner indicates the session is running.

```
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
checkmateappv2  latest   ed69509d5803  19 hours ago  1.4GB
lionel/checkmateappv2  0.1    ed69509d5803  19 hours ago  1.4GB
assetmgmtsvc   latest   5ed50c8e47cb  2 weeks ago   902MB
lioneljones@MacBookAirM1 ~ % docker login -u lionel5116 docker.io
Password:
Login Succeeded
lioneljones@MacBookAirM1 ~ % docker untag lionel/checkmateappv2:0.1
docker: 'untag' is not a docker command.
See 'docker --help'
lioneljones@MacBookAirM1 ~ % docker rmi lionel/checkmateappv2:0.1
Untagged: lionel/checkmateappv2:0.1
lioneljones@MacBookAirM1 ~ % docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
checkmateappv2  latest   ed69509d5803  19 hours ago  1.4GB
assetmgmtsvc   latest   5ed50c8e47cb  2 weeks ago   902MB
lioneljones@MacBookAirM1 ~ % docker tag checkmateappv2 lionel5116/checkmateappv2:0.1
lioneljones@MacBookAirM1 ~ % docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
checkmateappv2  latest   ed69509d5803  19 hours ago  1.4GB
lionel5116/checkmateappv2  0.1    ed69509d5803  19 hours ago  1.4GB
assetmgmtsvc   latest   5ed50c8e47cb  2 weeks ago   902MB
lioneljones@MacBookAirM1 ~ % docker push lionel5116/checkmateappv2:0.1
The push refers to repository [docker.io/lionel5116/checkmateappv2]
2c4a7fa73121: Pushed
64dcc1657636: Pushed
2091e71cccc8d: Pushed
e15b8feeff43: Pushed
9fbf4bdec6d0: Pushed
c9fbbbf6830: Pushed
913e305e0b10: Pushed
04ca51e26547: Pushing [=====>]  405.6MB
d6580afbc3a2: Pushed
a96c44365728: Pushed
c74e32b39753: Mounted from library/node
e9c8626e4617: Mounted from library/node
5cb5bc92f68a: Mounted from library/node
f5d56b5764aa: Mounted from library/node
f65d778d2cbb: Mounted from library/node
5e007f0496b2: Mounted from library/node
bb2dc5ff8a7e: Mounted from library/node
2635506b638a: Mounted from library/node
0604d9deb7ea: Mounted from library/node
```

The screenshot shows a Docker Hub repository page for the user 'lionel5116' and the repository 'checkmateappv2'. The 'General' tab is selected. At the top, there's a note to 'Add a short description for this repository' with a 'Update' button. Below that, the repository name 'lionel5116 / checkmateappv2' is displayed, along with a 'Description' section stating 'This repository does not have a description' and a 'Last pushed: 5 minutes ago' message. To the right, there's a 'Docker commands' section with a 'Public View' button and a command box containing 'docker push lionel5116/checkmateappv2:tagname'. The 'Tags and scans' section shows one tag, '0.1', which is an 'Image' type. The 'VULNERABILITY SCANNING - DISABLED' status is shown with an 'Enable' link. The 'Automated Builds' section explains how to automatically build and tag images, noting it's available with Pro, Team and Business subscriptions, with 'Upgrade' and 'Learn more' buttons.

## To pull the image

```
docker pull lionel5116/checkmateapp2
```

**Tip:** Pulling the image to Docker Public Registry (Working with doc exec – python- nano)

To pull the image:

```
docker pull lionel5116/checkmateappv2:0.1
```

Screenshot of Docker Hub repository page for `lione15116/checkmateappv2`:

**General Tab:**

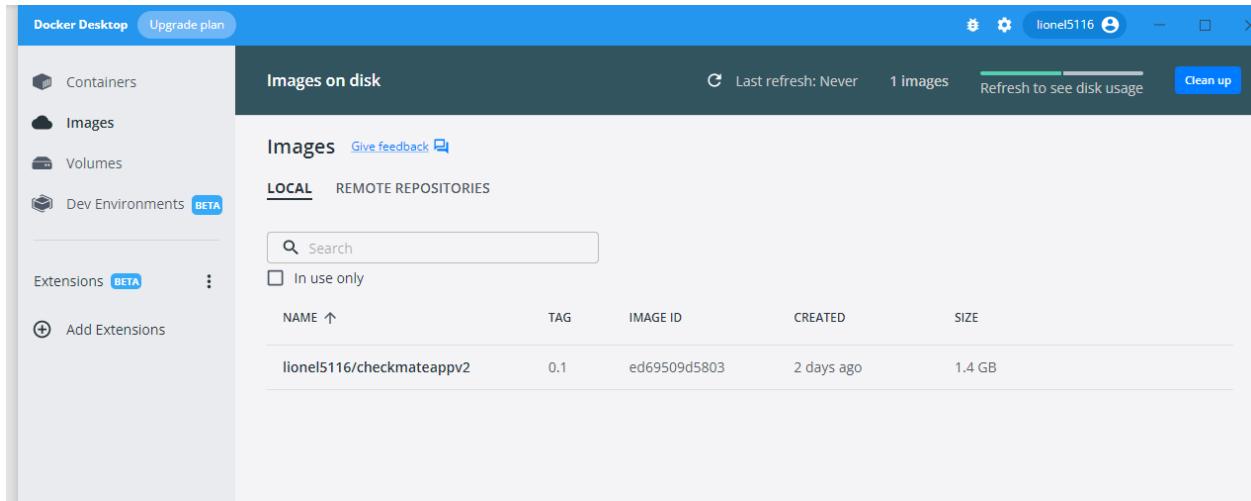
- Description: This is an image that has a good MERN Stack application that I built of a Pharmaceutical Company.
- Docker commands: `docker push lione15116/checkmateappv2:tagname`
- Last pushed: a day ago
- Tags and scans: 1 tag (0.1), OS: Image, Type: Image, Pulled: --, Pushed: a day ago.
- Vulnerability scanning: DISABLED
- Automated Builds: Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.
- README: Repository description is empty. Click [here](#) to edit.

**Windows PowerShell Window:**

```

PS C:\Users\p00149021> docker images
docker: 'imaages' is not a docker command.
See 'docker --help'
PS C:\Users\p00149021> docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
PS C:\Users\p00149021> docker containers ps
docker: 'containers' is not a docker command.
See 'docker --help'
PS C:\Users\p00149021> docker container ps
CONTAINER ID      IMAGE      COMMAND      CREATED      STATUS      PORTS      NAMES
PS C:\Users\p00149021> docker pull lione15116/checkmateappv2:0.1
0.1: Pulling from lione15116/checkmateappv2
3ba81f4c3c21: Pull complete
3f5909aab8ca: Pull complete
a633475baeae: Pull complete
9f22a2b8ddcb: Pull complete
985dd0945ed8: Pull complete
9540207a60ab: Pull complete
47e4d371e7f1: Pull complete
85c724a200e1: Pull complete
9098c6ccf26a: Pull complete
0cf9960a632e: Pull complete
05cd72faafbf1: Pull complete
51a06923f26e: Pull complete
fae0d3e96a11: Pull complete
8dac535b887a: Pull complete
cb3055973173: Pull complete
a35edd3bc176: Pull complete
fc47b1013619: Pull complete
4aa5a056591a: Pull complete
4f0429a0cece: Pull complete
Digest: sha256:286d9d8cb10ab97d505e96a404b3ddc50fb12d7175e0f9c0fa79d0b32dd085d0
Status: Downloaded newer image for lione15116/checkmateappv2:0.1
docker.io/lione15116/checkmateappv2:0.1
PS C:\Users\p00149021> docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
lione15116/checkmateappv2  0.1      ed69509d5803  42 hours ago  1.4GB
PS C:\Users\p00149021>

```



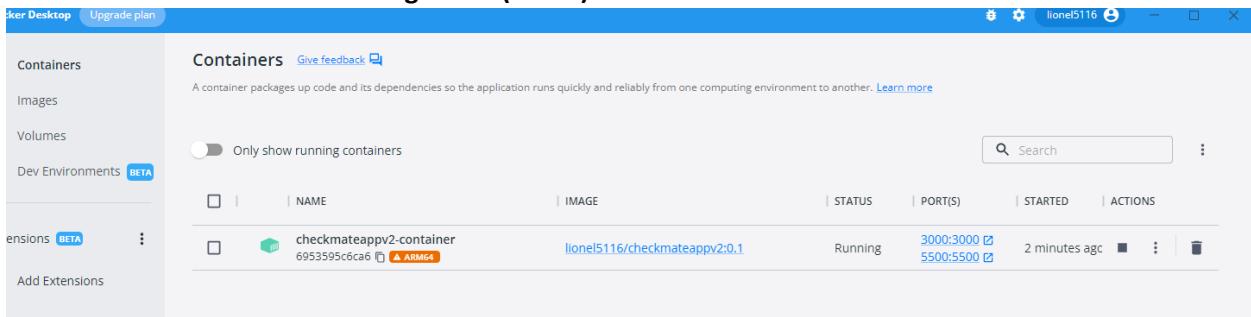
**Now all we have to do is run the image**

```
docker run --name checkmateappv2-container -p 3000:3000 -p 5500:5500 -d
lionel5116/checkmateappv2:0.1
```

```
#D
#ENTRYPOINT ["npm", "start"]
#ENTRYPOINT ["node", "server.js"]
ENTRYPOINT ["npm", "run", "dev"]

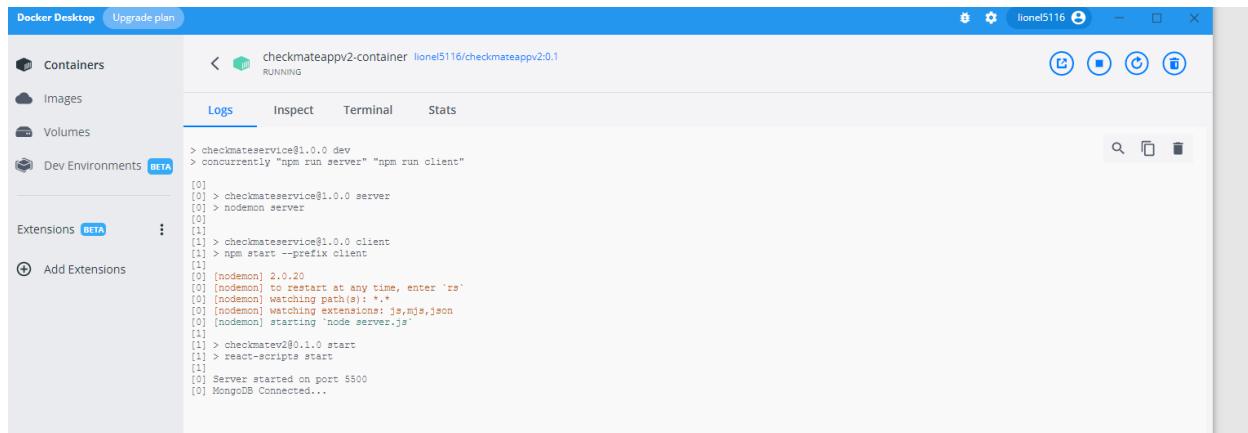
#A T
#B A PS C:\Users\p00149021> docker run --name checkmateappv2-container -p 3000:3000 -p 5500:5500 -d lionel5116/checkmateappv2:0.1
#C C d
#D S 6953595c6ca6186cd5ccb845636f38402d7f2ce12261a1aebc0f51c1b96c647
#E - PS C:\Users\p00149021>
#F R
#dock
```

**Notice how we had to add the tag name (in red)**

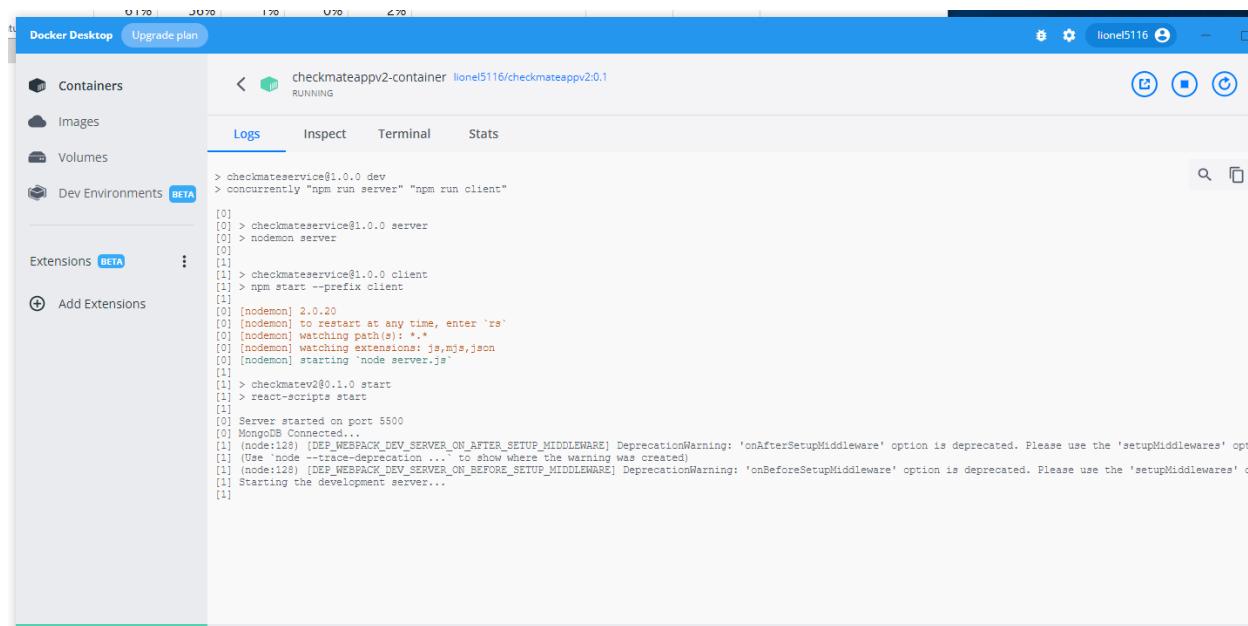


The arm64 indicates that we are running it under and arm64 (because we built it on my arm64 mac)  
You can probably specify the processor under a different command.

## Now we test:



But it never completed mounted (because of the arm64)



So in a nutshell, if you built it on windows and pushed it out the registry, it would perform normally.

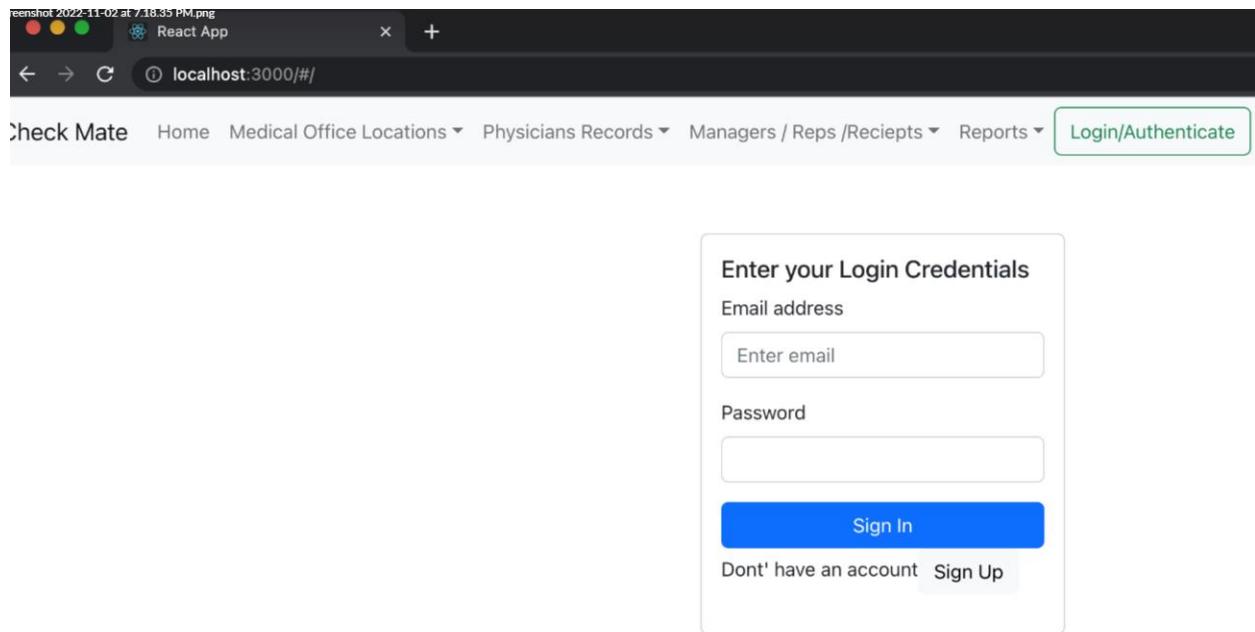
## Pulling the image onto my mac

After pulling the image onto my from the registry:

Installed in less than 10 seconds (incredible)

Started the container->lightning fast (ran lightning fast)

```
root@25cd4ed71f9a:/teststuff# python test.py
set(['lionel'])
root@25cd4ed71f9a:/teststuff# exit
exit
lioneljones@MackBookAirM1 ~ % docker container ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS
25cd4ed71f9a lionel5116/checkmateappv2:0.1 "npm run dev" 33 minutes ago Up 3 minutes 0.0.0.0:3000->3000/tcp, 0.0.0.0:5500->5500/tcp
lioneljones@MackBookAirM1 ~ % _
```



Unix:

Did a

A screenshot of a terminal window with a dark background. The terminal prompt is "[root@25cd4ed71f9a:/teststuff#". The user runs "python test.py", which outputs "set(['lionel'])". Then they run "exit". The terminal then shows a new prompt: "lioneljones@MackBookAirM1 ~ % docker exec -it 25cd4ed71f9a bash\_".

Did a:

apt-get update

```
root@25cd4ed71f9a:/# cd teststuff/
root@25cd4ed71f9a:/teststuff# ls -al
total 12
drwxr-xr-x 2 root root 4096 Nov  3 00:00 .
drwxr-xr-x 1 root root 4096 Nov  2 23:56 ..
-rw-r--r-- 1 root root 122 Nov  2 23:59 test.py
root@25cd4ed71f9a:/teststuff# sudo apt-get update
bash: sudo: command not found
root@25cd4ed71f9a:/teststuff# apt-get update
Hit:1 http://deb.debian.org/debian buster InRelease
Hit:2 http://deb.debian.org/debian-security buster/updates InRelease
Hit:3 http://deb.debian.org/debian buster-updates InRelease
Reading package lists... Done
root@25cd4ed71f9a:/teststuff# _
```

then

apt-get install nano

Then did a nano test.py and placed the contents:



```
GNU nano 3.2

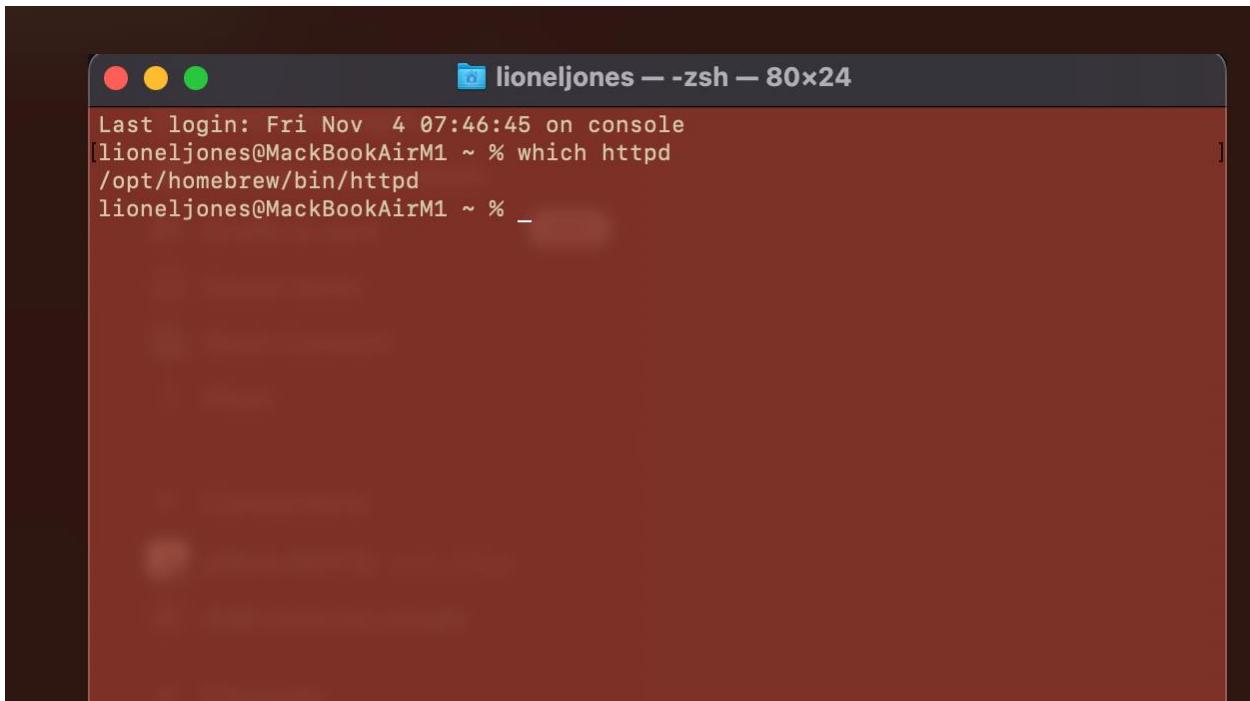
myList = {"lionel", "david", "Katherin"}
myList2 = {"Carol", "vaughn", "lionel"}
xy = myList.intersection(myList2)
print(xy)
```

Then ran the python script.. cool

**Tip:** Installing a React App with Apache on a MacBook  
<https://github.com/lionel5116/CheckMateApp.git>

<https://gist.github.com/ywwwtseng/63c36ccb58a25a09f7096bbb602ac1de>

Find out which version of Apache you are running (this determines where to copy over your files)



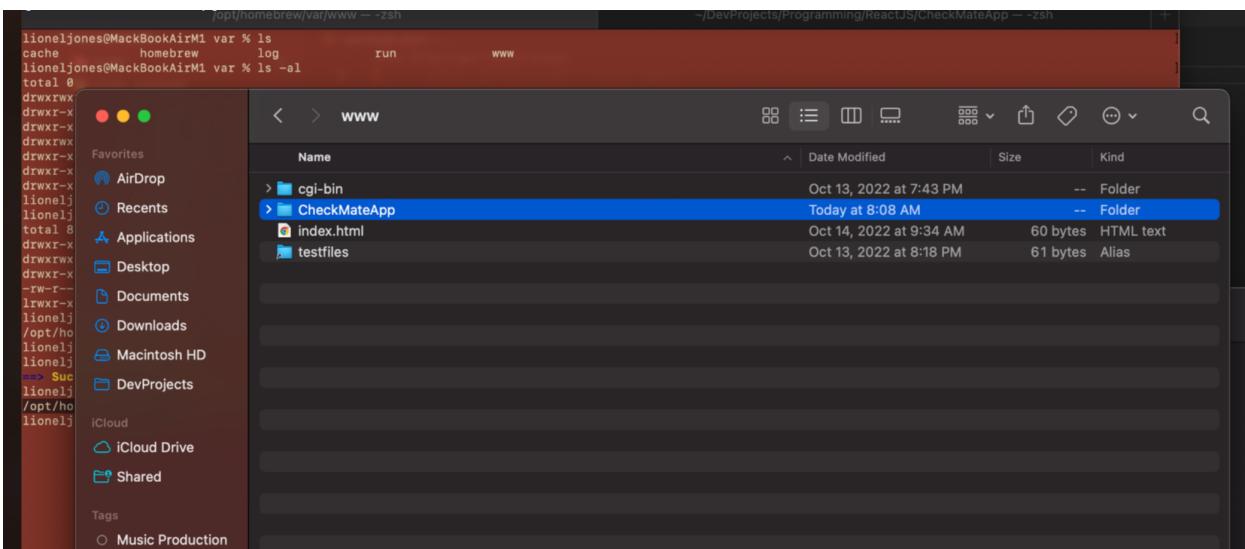
```
Last login: Fri Nov  4 07:46:45 on console
lioneljones@MacBookAirM1 ~ % which httpd
/opt/homebrew/bin/httpd
lioneljones@MacBookAirM1 ~ % _
```

From there you can tell that your www folder is located under:  
**/opt/homebrew/var/www**

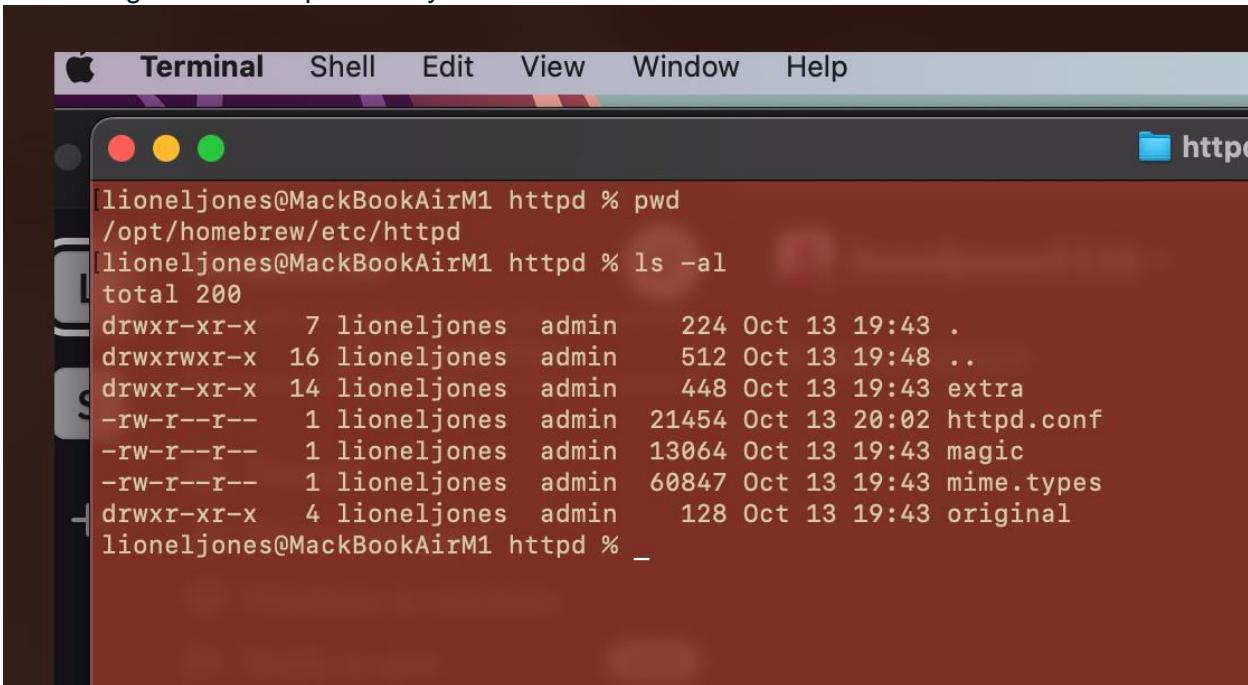
Then  
Build your app with npm run build

Copy over your build files to a folder in your wwwroot

```
www -- zsh -- 157x42
lioneljones@MacBookAirM1 var % ls
cache      homebrew    log      run      www
lioneljones@MacBookAirM1 var % ls -al
total 0
drwxrwxr-x  7 lioneljones  admin  224 Oct 13 19:43 .
drwxr-xr-x  32 lioneljones  admin 1024 Nov  1 14:52 ..
drwxr-xr-x  4 lioneljones  admin 128 Oct 13 19:48 cache
drwxrwxr-x  4 lioneljones  admin 128 Oct 13 18:48 homebrew
drwxr-xr-x  4 lioneljones  admin 128 Oct 13 19:48 log
drwxr-xr-x  3 lioneljones  admin  96 Oct 13 19:43 run
drwxr-xr-x  5 lioneljones  admin 160 Oct 13 20:22 www
lioneljones@MacBookAirM1 www % cd www
lioneljones@MacBookAirM1 www % ls -al
total 8
drwxr-xr-x  5 lioneljones  admin 160 Oct 13 20:22 .
drwxrwxr-x  7 lioneljones  admin 224 Oct 13 19:43 ..
drwxr-xr-x  6 lioneljones  admin 192 Oct 13 19:43 cgi-bin
drwxr--r--  1 lioneljones  admin  60 Oct 14 09:34 index.html
drwxr-xr-x  1 lioneljones  admin  61 Oct 13 20:18 testfiles -> /Users/lioneljones/DevProjects/Programming/WebSites/testfiles
lioneljones@MacBookAirM1 www % pwd
/opt/homebrew/var/www
lioneljones@MacBookAirM1 www % nano index.html
lioneljones@MacBookAirM1 www % brew services start httpd
==> Successfully started `httpd` (label: homebrew.mxcl.httpd)
lioneljones@MacBookAirM1 www %
```



Next navigate to the http directory



A screenshot of a Mac OS X Terminal window. The title bar says "Terminal". The window shows a file listing in the "/opt/homebrew/etc/httpd" directory. The output is as follows:

```
[lioneljones@MackBookAirM1 httpd % pwd  
/opt/homebrew/etc/httpd  
[lioneljones@MackBookAirM1 httpd % ls -al  
total 200  
drwxr-xr-x 7 lioneljones admin 224 Oct 13 19:43 .  
drwxrwxr-x 16 lioneljones admin 512 Oct 13 19:48 ..  
drwxr-xr-x 14 lioneljones admin 448 Oct 13 19:43 extra  
-rw-r--r-- 1 lioneljones admin 21454 Oct 13 20:02 httpd.conf  
-rw-r--r-- 1 lioneljones admin 13064 Oct 13 19:43 magic  
-rw-r--r-- 1 lioneljones admin 60847 Oct 13 19:43 mime.types  
drwxr-xr-x 4 lioneljones admin 128 Oct 13 19:43 original  
lioneljones@MackBookAirM1 httpd % _
```

Edit the httpd.conf file:

```
ServerAdmin you@example.com

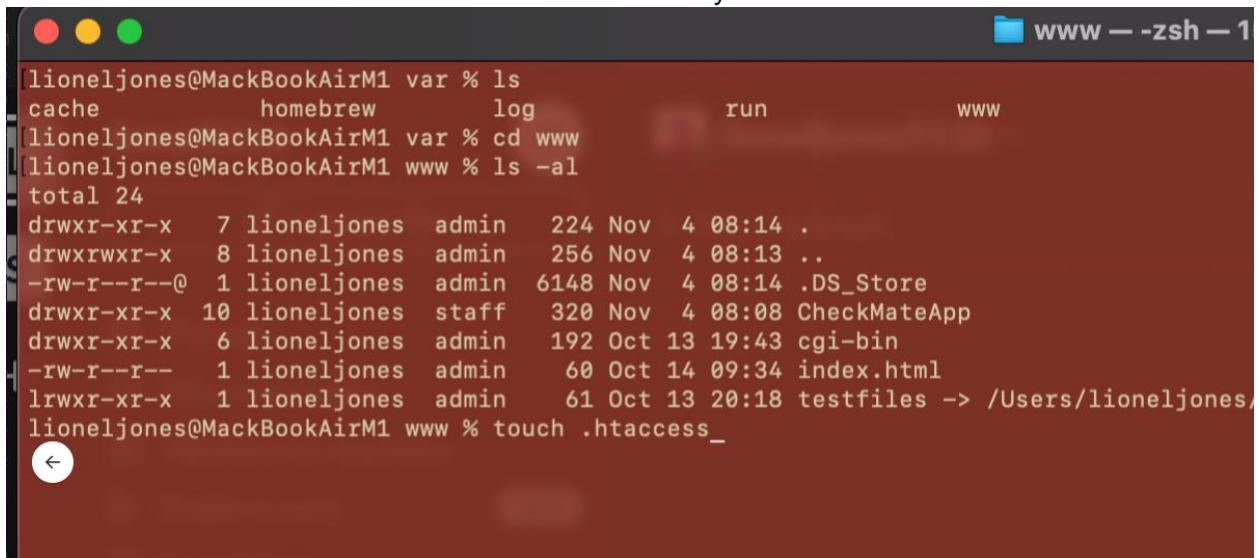
#
# ServerName gives the name and port that the server uses to identify itself.
# This can often be determined automatically, but we recommend you set it explicitly to prevent problems during startup.
#
# If your host doesn't have a registered DNS name, enter its IP address here.
#
#ServerName www.example.com:8080

#
# Deny access to the entirety of your server's filesystem. You must
# explicitly permit access to web content directories in other
# <Directory> blocks below.
#
<Directory />
    AllowOverride All_
    Require all denied
</Directory>

#
```

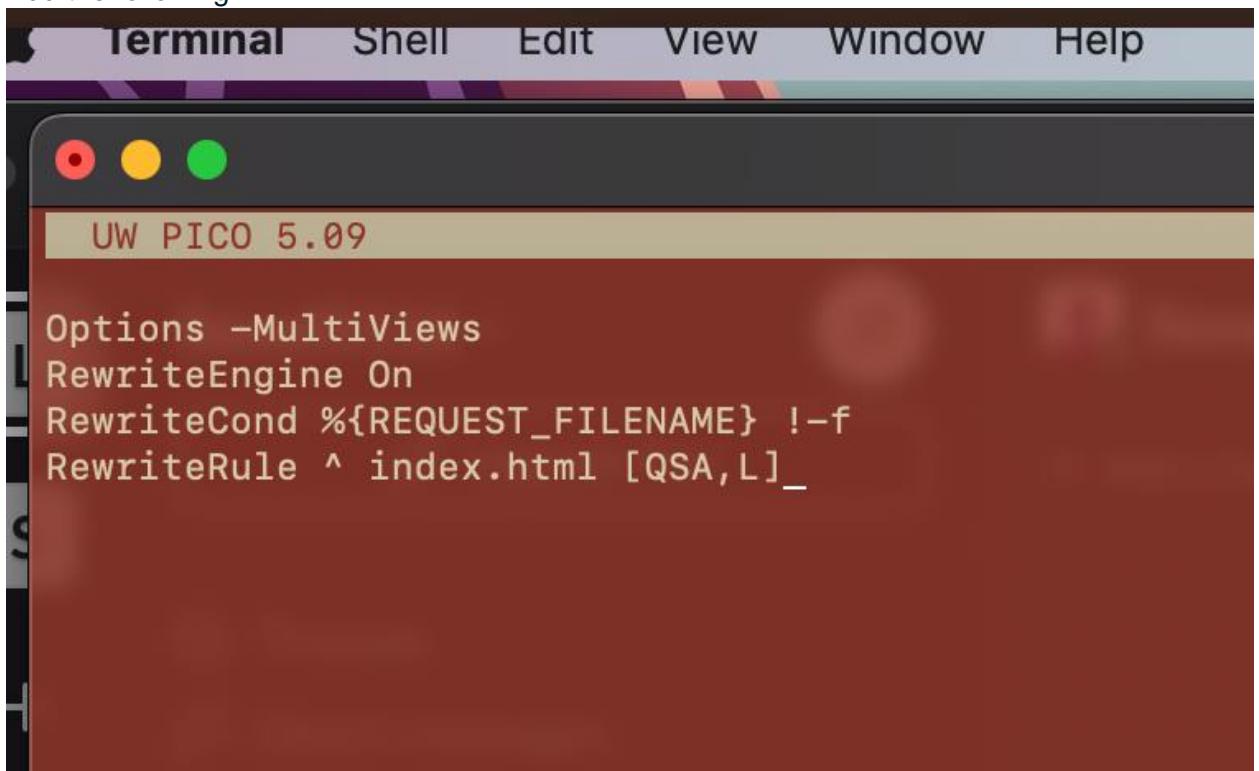
Change the value of AllowOveridde None to All as shown above

Next create a file named .htaccess in the www directory



```
lioneljones@MacBookAirM1 var % ls
cache          homebrew      log           run           www
lioneljones@MacBookAirM1 var % cd www
lioneljones@MacBookAirM1 www % ls -al
total 24
drwxr-xr-x  7 lioneljones  admin   224 Nov  4 08:14 .
drwxrwxr-x  8 lioneljones  admin   256 Nov  4 08:13 ..
-rw-r--r--@  1 lioneljones  admin  6148 Nov  4 08:14 .DS_Store
drwxr-xr-x 10 lioneljones  staff   320 Nov  4 08:08 CheckMateApp
drwxr-xr-x  6 lioneljones  admin  192 Oct 13 19:43 cgi-bin
-rw-r--r--  1 lioneljones  admin   60 Oct 14 09:34 index.html
lrwxr-xr-x  1 lioneljones  admin   61 Oct 13 20:18 testfiles -> /Users/lioneljones/
lioneljones@MacBookAirM1 www % touch .htaccess_
```

Add the following:



```
Terminal  Shell  Edit  View  Window  Help
```

```
UW PICO 5.09

Options -MultiViews
RewriteEngine On
RewriteCond %{REQUEST_FILENAME} !-f
RewriteRule ^ index.html [QSA,L]
```

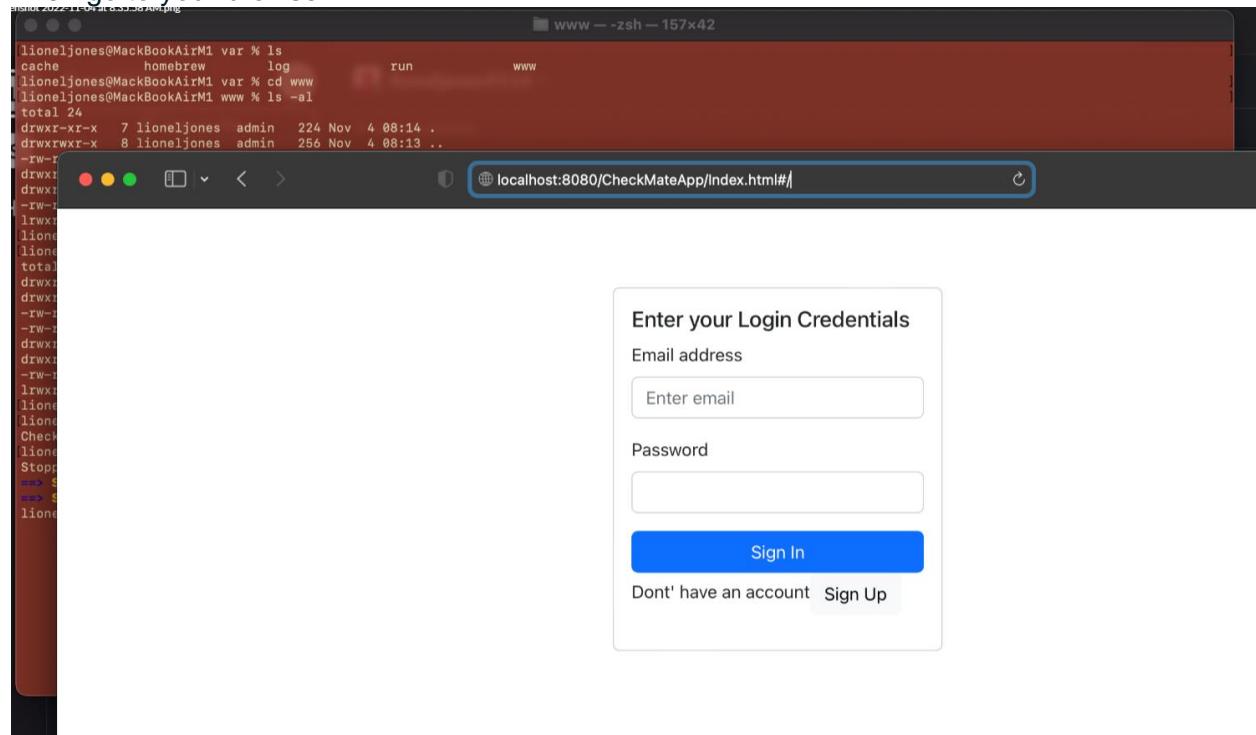
Next Restart Apache

```

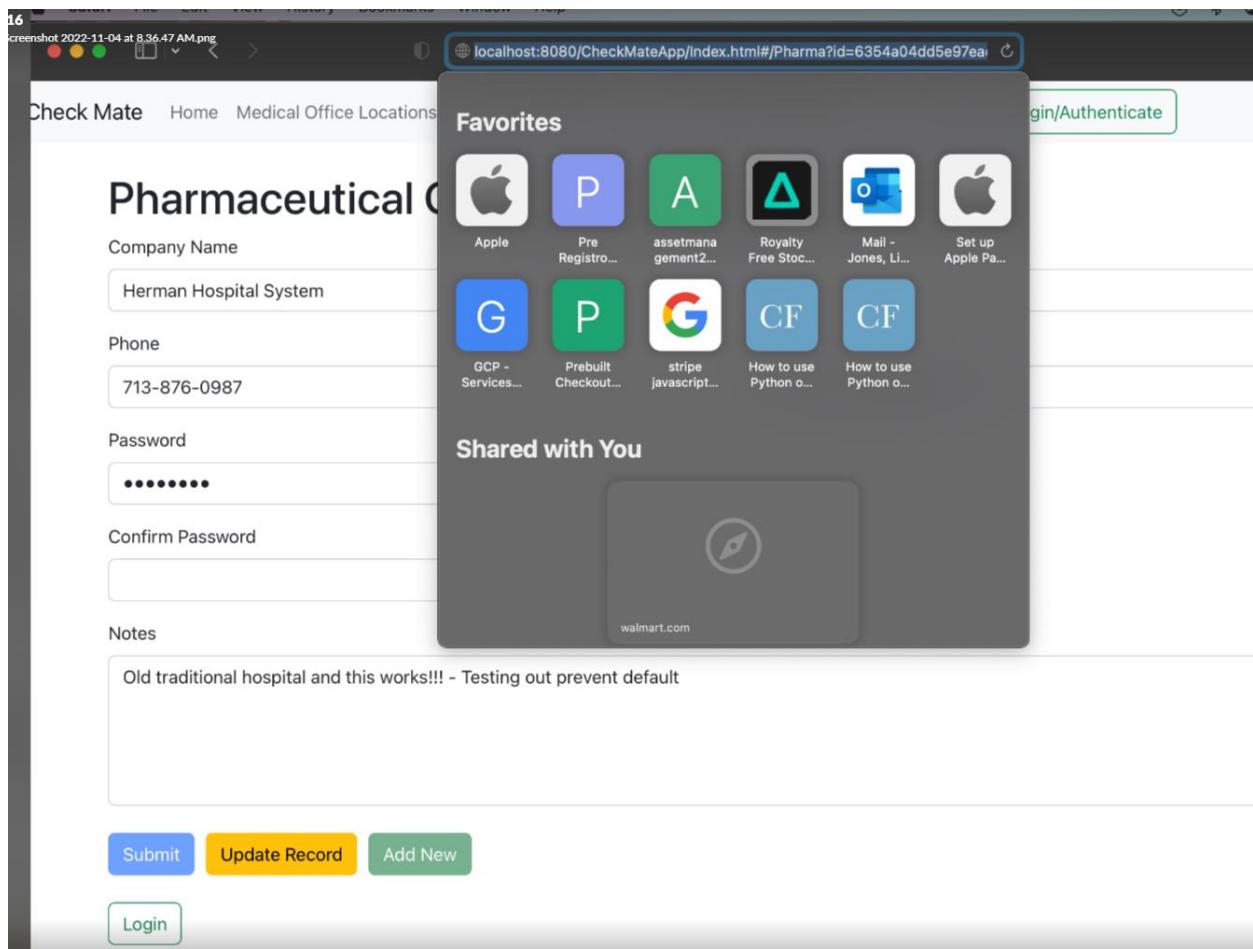
lioneljones@MacBookAirM1 var % cd www
lioneljones@MacBookAirM1 www % ls -al
total 24
drwxr-xr-x  7 lioneljones  admin   224 Nov  4 08:14 .
drwxrwxr-x  8 lioneljones  admin   256 Nov  4 08:13 ..
-rw-r--r--@  1 lioneljones  admin  6148 Nov  4 08:14 .DS_Store
drwxr-xr-x 10 lioneljones  staff   320 Nov  4 08:08 CheckMateApp
drwxr-xr-x  6 lioneljones  admin   192 Oct 13 19:43 cgi-bin
-rw-r--r--@  1 lioneljones  admin   60 Oct 14 09:34 index.html
lrwxr-xr-x  1 lioneljones  admin   61 Oct 13 20:18 testfiles -> /Users/lioneljones/DevProjects/Programming/WebSites/testfiles
lioneljones@MacBookAirM1 www % touch .htaccess
lioneljones@MacBookAirM1 www % ls -al
total 24
drwxr-xr-x  8 lioneljones  admin   256 Nov  4 08:30 .
drwxrwxr-x  8 lioneljones  admin   256 Nov  4 08:13 ..
-rw-r--r--@  1 lioneljones  admin  6148 Nov  4 08:14 .DS_Store
-rw-r--r--@  1 lioneljones  admin    0 Nov  4 08:30 .htaccess
drwxr-xr-x 10 lioneljones  staff   320 Nov  4 08:08 CheckMateApp
drwxr-xr-x  6 lioneljones  admin   192 Oct 13 19:43 cgi-bin
-rw-r--r--@  1 lioneljones  admin   60 Oct 14 09:34 index.html
lrwxr-xr-x  1 lioneljones  admin   61 Oct 13 20:18 testfiles -> /Users/lioneljones/DevProjects/Programming/WebSites/testfiles
lioneljones@MacBookAirM1 www % nano .htaccess
lioneljones@MacBookAirM1 www % ls
CheckMateApp  cgi-bin  index.html  testfiles
lioneljones@MacBookAirM1 www % brew services restart httpd
Stopping `httpd`... (might take a while)
==> Successfully stopped `httpd` (label: homebrew.mxcl.httpd)
==> Successfully started `httpd` (label: homebrew.mxcl.httpd)
lioneljones@MacBookAirM1 www %

```

Then go to your browser:



IT works!!!!



<http://localhost:8080/CheckMateApp/Index.html#/Login>

**Tip:** FINALLY TO THE CREATE REACT APP TO WORK WHEN DEPLOYING TO IIS (WITHOUT WEBPACK)

IT'S ALSO OUT ON GITHUB UNDER CHECKMATEAPP

See the fix below:

```

{
  "name": "checkmateapp",
  "version": "0.1.0",
  "private": true,
  "homepage": ".",
  "dependencies": {
    "testing-library/jest-dom": "^5.16.5",
    "testing-library/react": "^13.4.0",
    "testing-library/user-event": "^13.5.0",
    "axios": "^1.1.3",
    "bootstrap": "^5.2.2",
    "env-cmd": "^10.1.0",
    "moment": "^2.29.4",
    "react": "^18.2.0",
    "react-bootstrap": "^5.0.0",
    "react-bootstrap-icons": "^1.9.1",
    "react-bootstrap-table": "^4.3.1",
    "react-bootstrap-table-next": "^4.8.3",
    "react-bootstrap-table2-filter": "^1.3.3",
    "react-bootstrap-table2-paginator": "^2.1.2",
    "react-bootstrap-table2-toolkit": "^2.1.3",
    "react-dom": "^18.2.0",
    "react-moment": "^1.1.2",
    "react-redux": "^8.0.4",
    "react-router": "^5.2.0",
    "react-router-dom": "^5.3.4",
    "react-scripts": "5.0.1",
    "redux": "^4.2.0",
    "redux-devtools-extension": "^2.13.9",
    "redux-thunk": "^2.4.1",
    "uuid": "^9.0.0",
    "web-vitals": "^2.1.4"
  },
  "scripts": {
    "start": "react-scripts start",
    "build": "react-scripts build"
  }
}

```

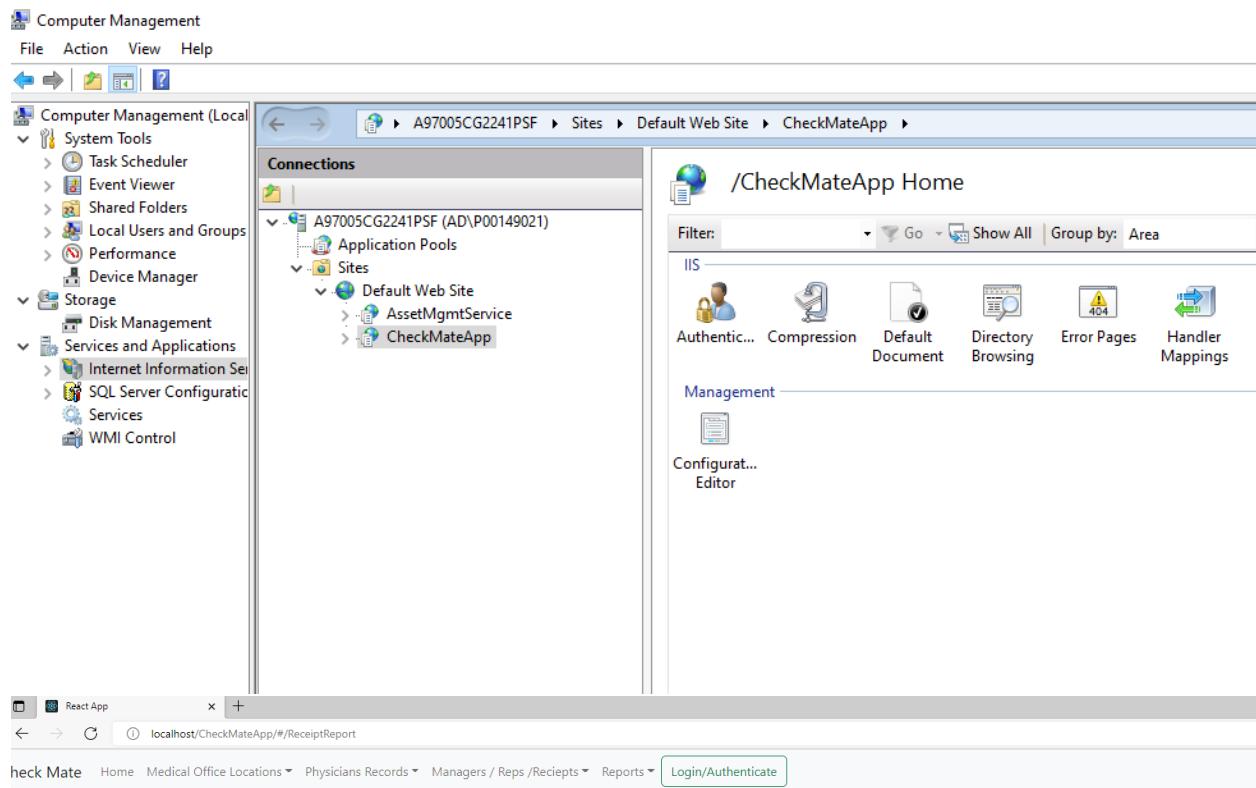
In your package.json file, add an entry for homepage:  
homepage: “.”

```

<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8" />
  <link rel="icon" href="./favicon.ico" />
  <meta name="viewport" content="width=device-width,initial-scale=1" />
  <meta name="theme-color" content="#000000" />
  <meta name="description" content="Web site created using create-react-app" />
  <link rel="apple-touch-icon" href="./logo192.png" />
  <link rel="manifest" href="./manifest.json" />
  <title>React App</title>
  <script defer="defer" src="/static/js/main.45a44133.js"></script>
  <link href="/static/css/main_b938ba3c.css" rel="stylesheet">
</head>
<body><noscript>You need to enable JavaScript to run this app.</noscript>
<div id="root"></div>
</body>
</html>

```

On the default build, it does not have the ./ , it has / and that's an absolute path, we need the ./ . After we put this in our file and re-build (npm run build) and deploy,  
It works!!!!!!



## Receipt Report

Enter Search Criteria

Date	Rep	Restaurant	Amount	SharedAmount	Doctors
9/12/2022	Michaels David	Hugos Fine Fish	350	0	Dr Larry Shaw
10/12/2022	Goode Karle	Papas Steak House	567	200	Mark Roberts, Carl Stone MD

Showing rows 1 to 2 of 2

1

Export to CSV

ON GITHUB:

The screenshot shows the VS Code interface. On the left is the Explorer sidebar with project files like .env, package.json, README.md, and several PDF files. The main area shows the package.json file with its contents:

```

{
  "name": "checkmateapp",
  "version": "0.1.0",
  "private": true,
  "homepage": "https://github.com/lionel5116/CheckMateApp",
  "dependencies": {
    "testing-library/jest-dom": "^5.16.5",
    "testing-library/react": "^13.4.0",
    "testing-library/user-event": "^13.5.0",
    "axios": "^1.1.3",
    "bootstrap": "~5.2.2",
    "env-cmd": "~10.1.0",
    "moment": "~2.29.4",
    "react": "~18.2.0",
    "react-bootstrap": "~2.5.0",
    "react-bootstrap-table": "~4.1.1",
    "react-bootstrap-table-next": "~4.0.3",
    "react-bootstrap-table2-filter": "~1.3.3",
    "react-bootstrap-table2-pagination": "~2.1.2",
    "react-bootstrap-table2-toolkit": "~2.1.3",
    "react-dom": "~18.2.0",
    "react-moment": "~1.1.2",
    "react-redux": "~8.0.4",
    "react-router": "~6.2.0",
    "react-router-dom": "~5.3.4",
    "react-scripts": "5.0.1",
    "redux": "~4.2.0",
    "redux-devtools-extension": "~2.13.9",
    "redux-thunk": "~2.4.1",
    "uuid": "~9.0.0",
    "web-vitals": "~2.1.4"
  },
  "scripts": {
    "start": "node scripts/start"
  }
}

```

The terminal at the bottom shows the command being run:

```

create mode 100644 src/reportWebVitals.js
create mode 100644 src/setupTests.js
create mode 100644 src/store/Store.js
PS C:\Dev\Projects\Programming\React\CheckMateApp> git remote add origin https://github.com/lionel5116/CheckMateApp.git
PS C:\Dev\Projects\Programming\React\CheckMateApp> git push -u origin main
error: src refspec main does not match any
error: failed to push some refs to 'https://github.com/lionel5116/CheckMateApp.git'
PS C:\Dev\Projects\Programming\React\CheckMateApp> git push -u origin master
Enumerating objects: 94, done.
Counting objects: 100% (94/94), done.
Delta compression using up to 8 threads.
Compressing objects: 100% (85/85), done.
Writing objects: 100% (94/94), done.
Total 94 (delta 42), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (12/12), done.
To https://github.com/lionel5116/CheckMateApp.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.
PS C:\Dev\Projects\Programming\React\CheckMateApp>

```

The screenshot shows a GitHub repository page for 'CheckMateApp' owned by 'lionel5116'. The page includes the following sections:

- Code**: Shows the master branch with 1 commit by 'Jones and Jones' first commit, made 2 minutes ago.
- Issues**, **Pull requests**, **Actions**, **Projects**, **Wiki**, **Security**, **Insights**, **Settings**
- About**: Describes the app as deployed to Heroku and running well in IIS.
- Readme**, **0 stars**, **1 watching**, **0 forks**.
- Releases**: No releases published. Create a new release.
- Packages**: No packages published. Publish your first package.