

## **IMPORTANT!!! BEFORE SETUP:**

- Make sure Docker Desktop is installed on your machine.
- Additionally, if you are not on a Linux machine, make sure a Linux terminal of some kind (i.e. WSL) is installed on your machine as well.

## **YACS.n React Web Application Configuration & Setup**

### **1. Create destination directory:**

- Create a folder somewhere easily accessible (i.e. on your Desktop) and name it something relevant/memorable.
- This directory will be referred to as **yacs\_dir** for the rest of this tutorial.



### **2. Navigate to the directory:**

- Using a Linux terminal (i.e. WSL), navigate to the **yacs\_dir** directory.

```
root@LAPTOP-P87131HJ:~# cd /mnt/c/Users/smithj33/Desktop/yacs_dir
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir# |
```

### **3. Cloning the repository:**

- Type 'git clone <https://github.com/maggietrebilcock/yacs.git>' into the

terminal and hit enter. This will clone the repository onto your machine in the **yacs\_dir** directory.

```
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir# git clone https://github.com/maggietrebilcock/yacs.git
Cloning into 'yacs'...
remote: Enumerating objects: 363, done.
remote: Counting objects: 100% (363/363), done.
remote: Compressing objects: 100% (156/156), done.
remote: Total 363 (delta 180), reused 349 (delta 173), pack-reused 0 (from 0)
Receiving objects: 100% (363/363), 6.85 MiB | 6.48 MiB/s, done.
Resolving deltas: 100% (180/180), done.
Updating files: 100% (150/150), done.
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir#
```

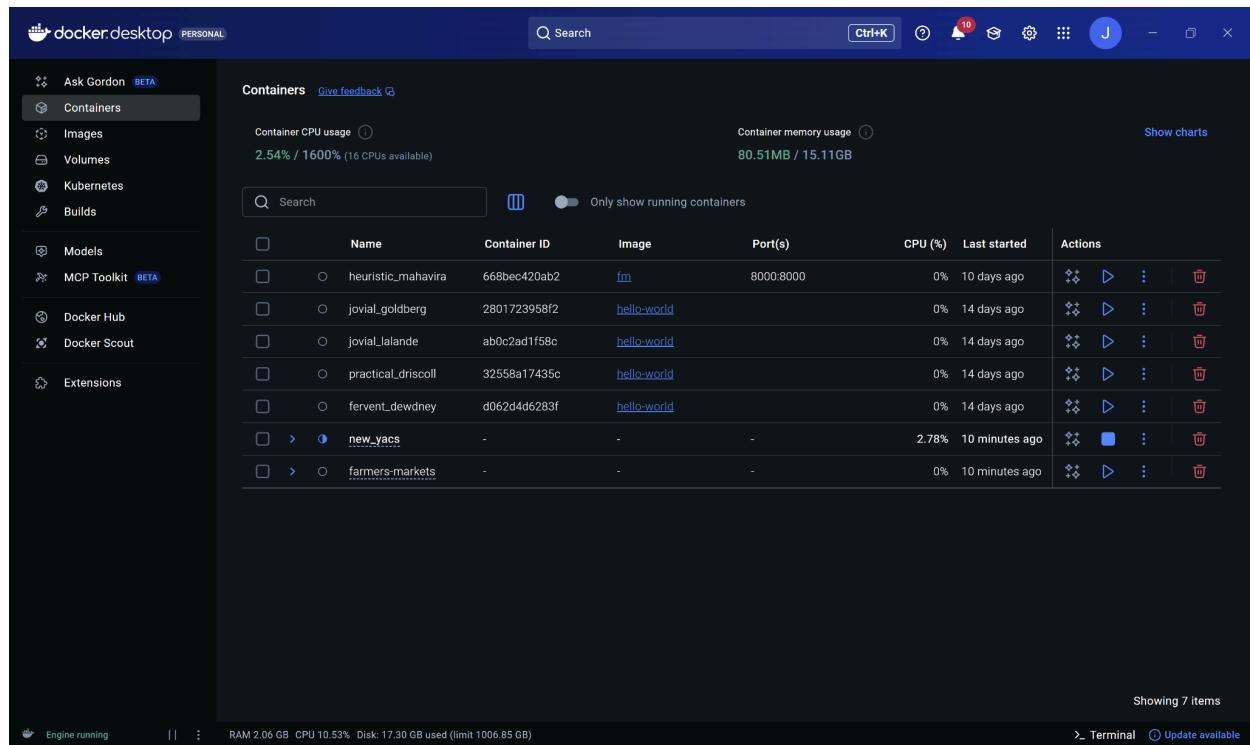
#### 4. Navigate into the cloned repository:

- Type ‘**cd yacs**’ into the terminal and hit enter.

```
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir# cd yacs
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs# |
```

#### 5. Create the Docker container for the YACS app:

- Make sure Docker Desktop is running, ideally with administrator privileges.



- Type ‘**docker compose -p new\_yacs up -d**’ into the terminal and hit enter. You should see the container being created if Docker has been installed correctly.

```
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs# docker compose -p new_yacs up -d
[+] Running 3/3
  ✓ Container new_yacs-frontend-1  Started          0.3s
  ✓ Container new_yacs-db-1      Started          0.4s
  ✓ Container new_yacs-backend-1 Started          0.4s
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs#
```

## 6. Navigate to the frontend directory:

- Type ‘**cd frontend**’ into the terminal and hit enter.

```
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs# cd frontend
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs/frontend#
```

## 7. Installing NVM:

For non-Windows users:

- Type ‘**curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.7/install.sh | bash**’ into the terminal and hit enter.

For Windows users:

- Click this link to go to the GitHub for the NVM version for Windows:  
<https://github.com/coreybutler/nvm-windows/releases/latest>

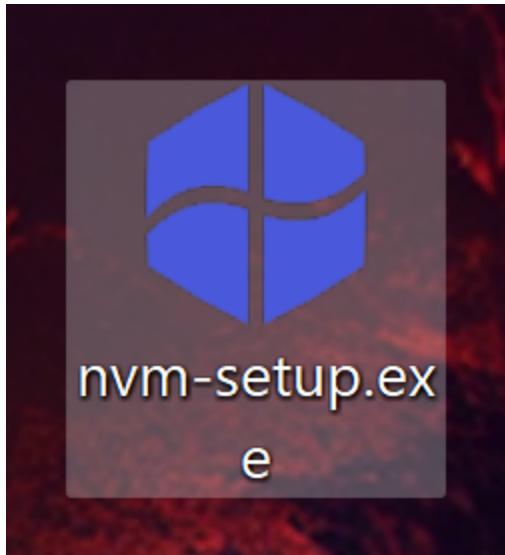
The screenshot shows the GitHub release page for the repository "coreybutler / nvm-windows". The release version is 1.2.2, labeled as "Latest". It was released on December 31. The changelog notes a fix for users who install on a drive other than C:\. The release includes 4 commits since the master branch. The "What's Changed" section lists several dependency updates:

- Bump actions/setup-go from 4 to 5 by [@dependabot](#) in [#1204](#)
- Bump actions/cache from 3 to 4 by [@dependabot](#) in [#1203](#)
- Bump softprops/action-gh-release from 1 to 2 by [@dependabot](#) in [#1202](#)
- Bump actions/github-script from 6 to 7 by [@dependabot](#) in [#1201](#)

Links for the full changelog (1.2.1...1.2.2), Attestation Report, and Antivirus Report are provided.

- Either download **nvm-setup.zip** and find and run **nvm-setup.exe**, or just download and run **nvm-setup.exe**. It's probably easier to just download and run the .exe file.

Assets 7			
<a href="#"> nvm-noinstall.zip</a>	6.01 MB	Dec 31	
<a href="#"> nvm-noinstall.zip.checksum.txt</a>	34 Bytes	Dec 31	
<a href="#"> nvm-setup.exe</a>	5.35 MB	Dec 31	
<a href="#"> nvm-setup.zip</a>	4.84 MB	Dec 31	
<a href="#"> nvm-setup.zip.checksum.txt</a>	34 Bytes	Dec 31	
<a href="#"> Source code (zip)</a>		Dec 31	
<a href="#"> Source code (tar.gz)</a>		Dec 31	



#### 8. Reload bash config:

- Type '**source ~/.bashrc**' into the terminal and hit enter.

```
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs/frontend# source ~/.bashrc
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs/frontend#
```

#### 9. Install/check for NVM v20:

- Type '**nvm install 20**' into the terminal and hit enter. This will either install NVM v20 if it is not installed or display a message stating it is already installed, in which case it will also show a message stating that v20 is now the NVM version being used.

```
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs/frontend# nvm install 20
v20.19.5 is already installed.
Now using node v20.19.5 (npm v10.8.2)
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs/frontend#
```

- If the 'Now using' message is not displayed, after the installation, type '**nvm use 20**' into the terminal and hit enter. The message should now display and confirm that v20 is being used.

```
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs/frontend# nvm use 20
Now using node v20.19.5 (npm v10.8.2)
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs/frontend#
```

## 10. Install NPM:

- Type ‘**npm install**’ into the terminal and hit enter.

```
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs/frontend# npm install
::
```

- It is worth noting a few things:
  - First, NPM may take a few minutes to fully install. This is normal and expected.
  - Second, you may see warning messages appear as the installation happens. This is also normal, and you do not need to change or fix anything to get rid of them.

```
npm warn deprecated @babel/plugin-proposal-class-properties@7.18.6: This proposal has been merged to the ECMAScript standard and thus this plugin is no longer maintained. Please use @babel/plugin-transform-class-properties instead.
npm warn deprecated @babel/plugin-proposal-numeric-separator@7.18.6: This proposal has been merged to the ECMAScript standard and thus this plugin is no longer maintained. Please use @babel/plugin-transform-numeric-separator instead.
npm warn deprecated rollup-plugin-terser@7.0.2: This package has been deprecated and is no longer maintained. Please use @rollup/plugin-terser
npm warn deprecated @humanwhocodes/config-array@0.13.0: Use @eslint/config-array instead
npm warn deprecated rimraf@3.0.2: Rimraf versions prior to v4 are no longer supported
npm warn deprecated abab@2.0.6: Use your platform's native atob() and btoa() methods instead
npm warn deprecated @babel/plugin-proposal-optional-chaining@7.21.0: This proposal has been merged to the ECMAScript standard and thus this plugin is no longer maintained. Please use @babel/plugin-transform-optional-chaining instead.
npm warn deprecated @babel/plugin-proposal-private-property-in-object@7.21.11: This proposal has been merged to the ECMAScript standard and thus this plugin is no longer maintained. Please use @babel/plugin-transform-private-property-in-object instead.
npm warn deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
npm warn deprecated @humanwhocodes/object-schema@2.0.3: Use @eslint/object-schema instead
npm warn deprecated domexception@2.0.1: Use your platform's native DOMException instead
npm warn deprecated w3c-hr-time@1.0.2: Use your platform's native performance.now() and performance.timeOrigin.
npm warn deprecated q@1.5.1: You or someone you depend on is using Q, the JavaScript Promise library that gave JavaScript developers strong feelings about promises. They can almost certainly migrate to the native JavaScript promise now. Thank you literally everyone for joining me in this bet against the odds. Be excellent to each other.
npm warn deprecated
npm warn deprecated (For a CapTP with native promises, see @endo/eventual-send and @endo/captpt)
npm warn deprecated sourcemap-codec@1.4.8: Please use @jridgewell/sourcemap-codec instead
npm warn deprecated workbox-cacheable-response@6.6.0: workbox-background-sync@6.6.0
npm warn deprecated source-map@0.8.0-beta.0: The work that was done in this beta branch won't be included in future versions
npm warn deprecated workbox-google-analytics@6.6.0: It is not compatible with newer versions of GA starting with v4, as long as you are using GAv3 it should be ok, but the package is not longer being maintained
::
```

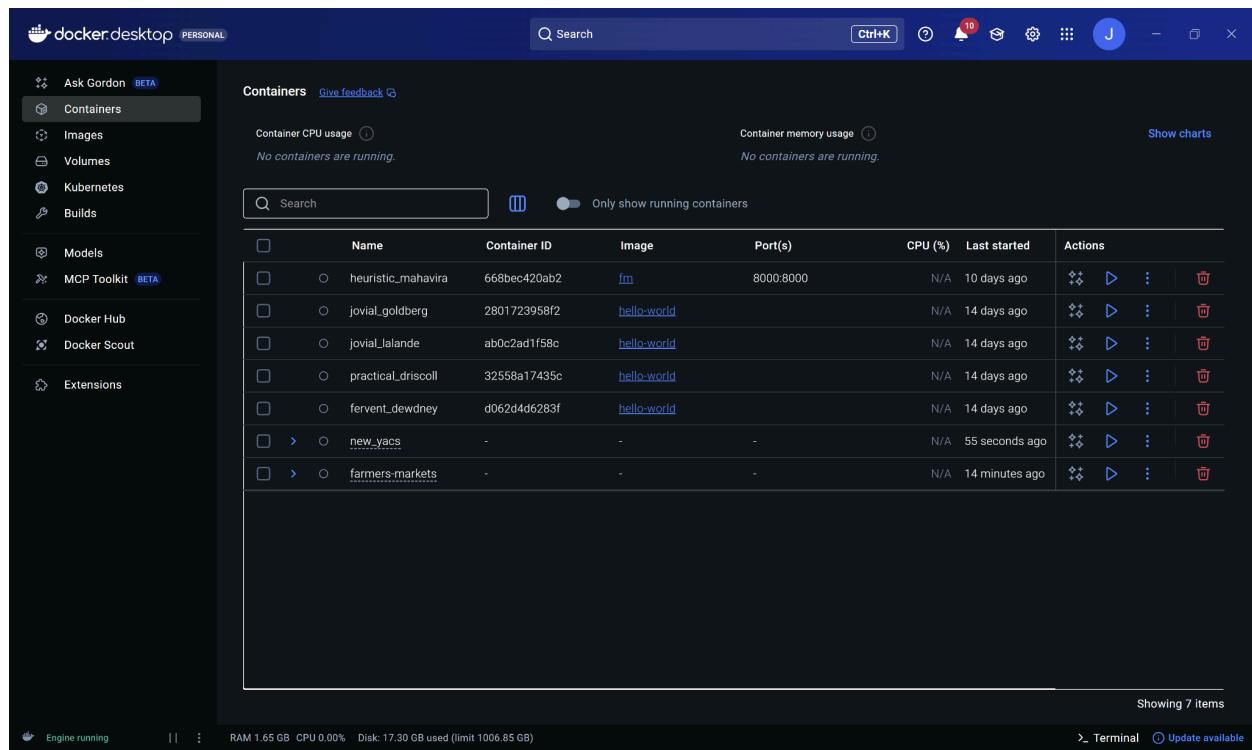
- Third, you may see a number of vulnerabilities listed after the installation finishes. This is expected. There is a way to remove them that will be suggested after the installation completes, but it is NOT recommended, as it

may affect the package.json file. Leave the vulnerabilities as they are.

```
added 1418 packages, and audited 1419 packages in 3m  
274 packages are looking for funding  
  run `npm fund` for details  
10 vulnerabilities (4 moderate, 6 high)  
To address all issues (including breaking changes), run:  
  npm audit fix --force  
Run `npm audit` for details.  
root@LAPTOP-P87131HJ:/mnt/c/Users/smithj33/Desktop/yacs_dir/yacs/frontend#
```

## 11. Testing your installation/setup:

- Open Docker Desktop if it is not open already.
- Navigate to the 'Containers' tab and find the **new\_yacs** container.



- The **new\_yacs** container may already be running. If this is the case, click the blue square under the ‘Actions’ tab to stop it.



- Click the dropdown arrow on the left side. You should now see all of the components of the container, namely **backend-1**, **db-1**, and **frontend-1**.

	new_yacs							
□	●	backend-1	10a84f53a129	<a href="#">new_yacs-backend</a>	8000:8000	N/A	2 minutes ago	⋮
□	○	db-1	94d03f811658	<a href="#">postgres:15</a>	5433:5432	N/A	2 minutes ago	⋮
□	○	frontend-1	516fa3695e23	<a href="#">new_yacs-frontend</a>	3000:3000	N/A	2 minutes ago	⋮

- Click the triangle/play/run button on the right side of the screen under the ‘Actions’ tab next to the **new\_yacs** container.



- NOTE: If you accidentally click the button next to any of the components instead of the container itself, you can either click the blue square that appears in place of the play button to shut the component down, or the one next to the container to shut the whole container down. Once the container is shut down fully, repeat the last step.

	new_yacs							
□	●	backend-1	10a84f53a129	<a href="#">new_yacs-backend</a>	8000:8000 ↗	3.06%	12 minutes ago	⋮
□	○	db-1	94d03f811658	<a href="#">postgres:15</a>	5433:5432	0%	12 minutes ago	⋮
□	○	frontend-1	516fa3695e23	<a href="#">new_yacs-frontend</a>	3000:3000	0%	31 minutes ago	⋮

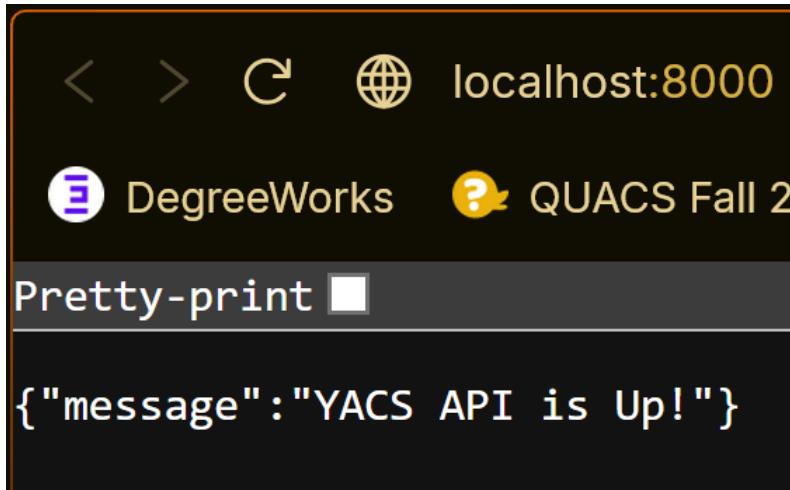
- Confirm that the empty gray circles to the left of the container name and each component light up green. If they do not, review the above steps to ensure they are completed correctly and in the right order.

<input type="checkbox"/>	<input checked="" type="checkbox"/>	new_yacs	-	-	-	10.95%	13 seconds ago			⋮	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	backend-1	10a84f53a129	<a href="#">new_yacs-backend</a>	<a href="#">8000:8000</a>	2.37%	13 seconds ago			⋮	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	db-1	94d03f811658	<a href="#">postgres:15</a>	<a href="#">5433:5432</a>	0.01%	14 seconds ago			⋮	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	frontend-1	516fa3695e23	<a href="#">new_yacs-frontend</a>	<a href="#">3000:3000</a>	8.57%	14 seconds ago			⋮	

- NOTE: Make sure the circles for ALL 3 COMPONENTS light up green. If they do, the circle next to the container will also light up green. If they do not, the circle next to the container will be a half-filled blue circle. If this happens, you can click the blue square next to the container to shut it down, then click the play button to start it again. If any of the circles continue to not light up green, review the above steps to ensure they are completed correctly and in the right order.

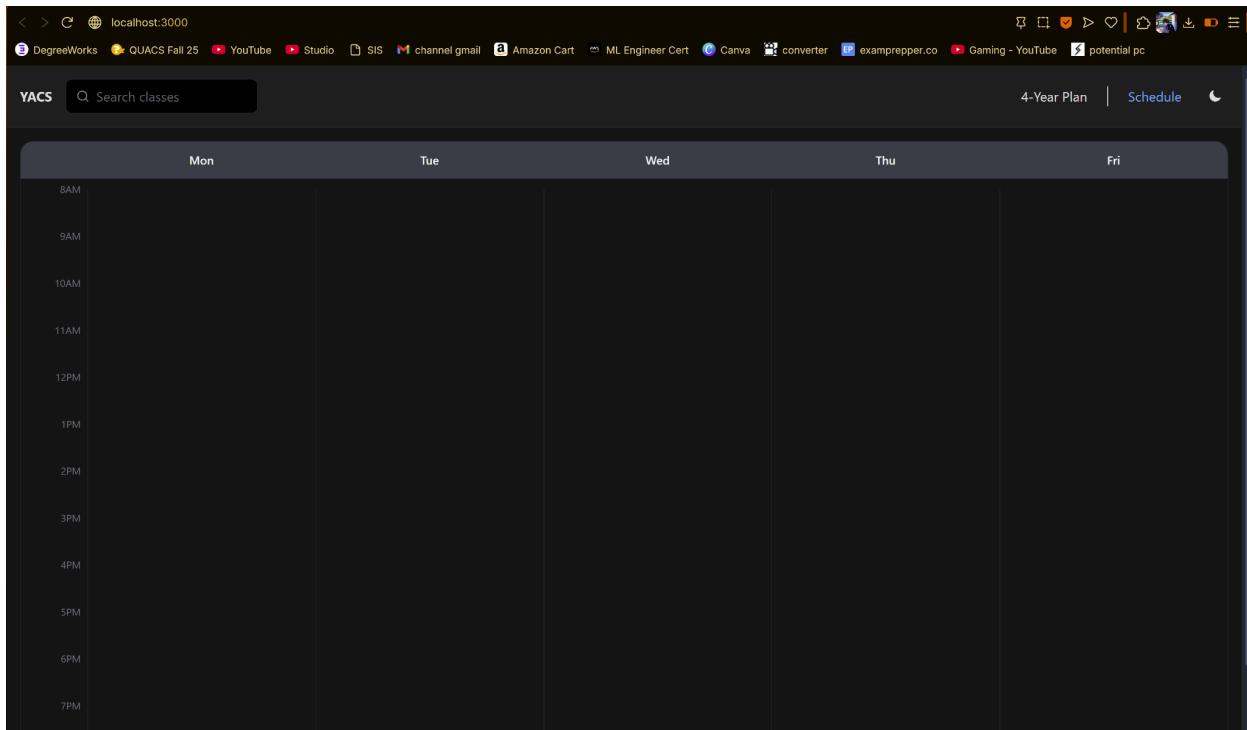
<input type="checkbox"/>	<input checked="" type="checkbox"/>	new_yacs	-	-	-	2.96%	9 minutes ago			⋮	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	backend-1	10a84f53a129	<a href="#">new_yacs-backend</a>	<a href="#">8000:8000</a>	2.96%	9 minutes ago			⋮	
<input type="checkbox"/>	<input type="radio"/>	db-1	94d03f811658	<a href="#">postgres:15</a>	5433:5432	0%	9 minutes ago			⋮	
<input type="checkbox"/>	<input type="radio"/>	frontend-1	516fa3695e23	<a href="#">new_yacs-frontend</a>	3000:3000	0%	28 minutes ago			⋮	

- Click the hyperlink under the ‘Port(s)’ tab next to **backend-1**. This link should take you to **localhost:8000**, which should display the message ‘{“message”:”YACS API is up!”}’. If this does not happen, review the above steps to ensure they are completed correctly and in the right order.



```
< > C localhost:8000
DegreeWorks ? QUACS Fall 2
Pretty-print ■
{"message": "YACS API is Up!"}
```

- After a few minutes, click the hyperlink under the ‘Port(s)’ tab next to **frontend-1**. This link should take you to **localhost:3000**, which will show the React App front page for the YACS website.
  - NOTE: It may take a few minutes for everything to set up. If you get an error or 404 message when attempting to view the web app page or the page continually buffers, wait a few minutes and try again. If this error persists after multiple attempts, review the above steps to ensure they are completed correctly and in the right order.



The YACS.n application is now set up and should be running properly!