

WARNING: MAKE SURE YOU ARE RUNNING THIS ON AT LEAST UBUNTU 20.04

I have personally struggled with recreating these installations on other Linux distros (Debian)

Node.js installation and create project:

1. Get [Node.js](#) v24.11.1(LTS) for Linux using nvm with npm. The following commands are provided directly by Nodejs website. Please make sure you are using a Linux system. These directions assume you have some other dependencies installed; for example, if you don't have curl installed, then please do so before proceeding.

```
# Download and install nvm:
```

```
curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.40.3/install.sh | bash
```

```
# in lieu of restarting the shell
```

```
\. "$HOME/.nvm/nvm.sh"
```

```
# Download and install Node.js:
```

```
nvm install 24
```

```
# Verify the Node.js version:
```

```
# Should print "v24.11.1".
```

```
node -v
```

```
# Verify npm version:
```

```
# Should print "11.6.2".
```

```
npm -v
```

2. Ctrl-c to exit the dev server. Go into the longhorn-gui directory using **cd longhorn-gui**. Then run the following command to add the previously installed package.

```
npm install
```

Install visualization libraries:

1. Run the following commands.

```
# Graph visualization library
```

```
npm install react-force-graph-2d  
  
# Material UI for nice buttons and layout (easy points for "Intuitive UI")  
npm install @mui/material @emotion/react @emotion/styled @mui/icons-material
```

Start the server:

1. Run the following command to start the server. Keep this terminal running.

```
npm run dev
```

2. You can open <http://localhost:5173> on a browser to open the React Page.

Questions

a. Did you use AI to code the UI? If so, what were the sources that the AI used, what was the AI good at and what was it not so good at? What did you do to fill in the gaps?

I did use AI to code the UI. The javascript was mostly coded with AI as I had never learned javascript before. The AI was definitely really good at designing a UI.

b. If you did not use AI, what sources did you use to learn React, and what were the hardest things to learn?

I did use AI. However, I did involve myself a lot more with understanding and designing the json formatting from the java backend.

c. We are planning to cover React next semester for this class, in what unit do you think this would be appropriate to teach?

I believe React would be a good transition topic between the networking and GUI units in the course.