

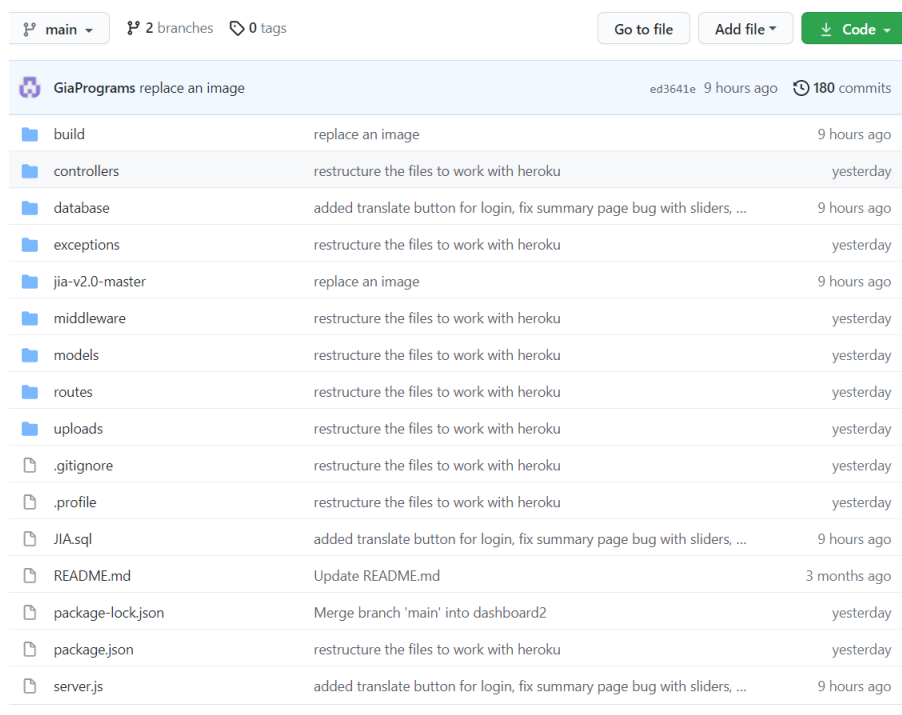
Resources

Below is the following software needed to run the project.

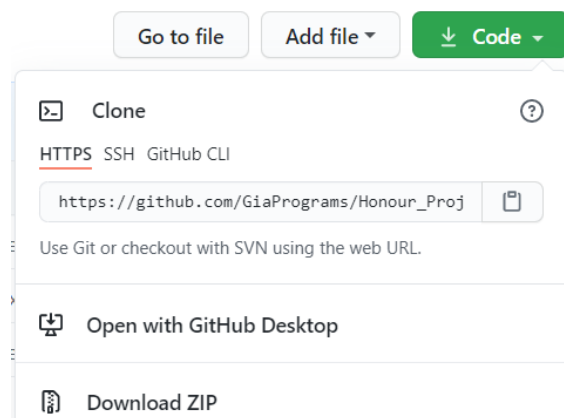
- Integrated development environment (IDE): Visual Studio Code, IntelliJ, Atom, etc.
- Local server environment: XAMPP, MAMP, etc.
- GitHub and Git
- Heroku

Acquiring the project

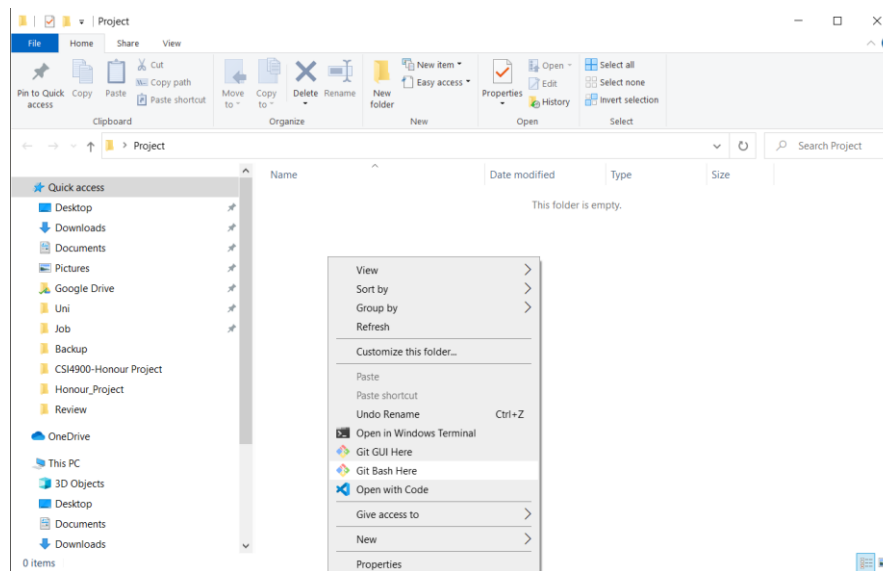
1. Click the following link to access the GitHub repository - https://github.com/GiaPrograms/Honour_Project



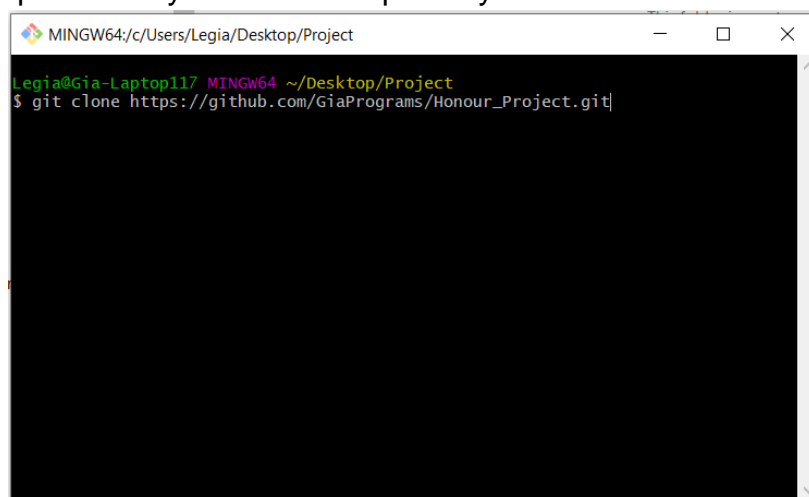
2. Click on the Code button and copy HTTPS link



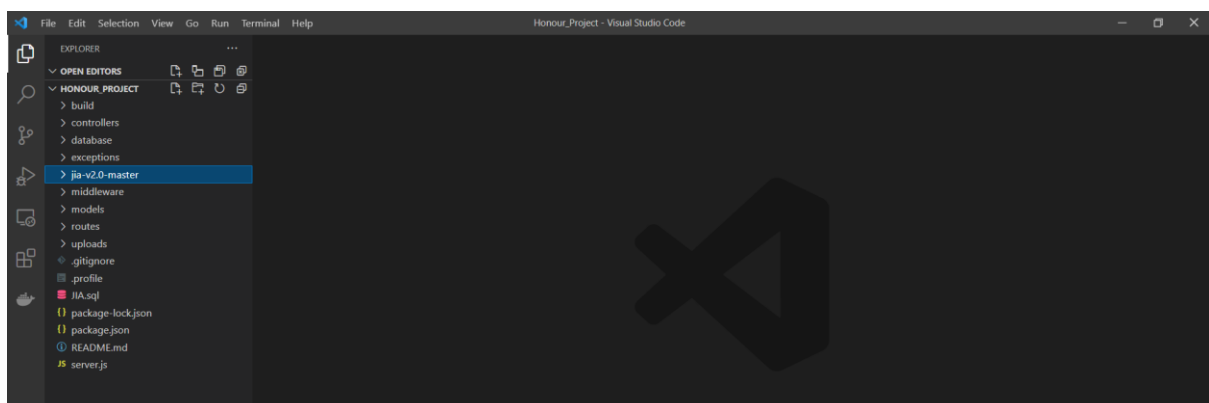
3. Assuming git is downloaded, create a new folder the right clicks the folder and press “Git Bash Here”.



4. A git terminal will open. There you can add the following line “git clone” and the link provided by the GitHub repository.



5. After entering the command, the project will be copy into the folder. From there you can access the project with the IDE of your choice.

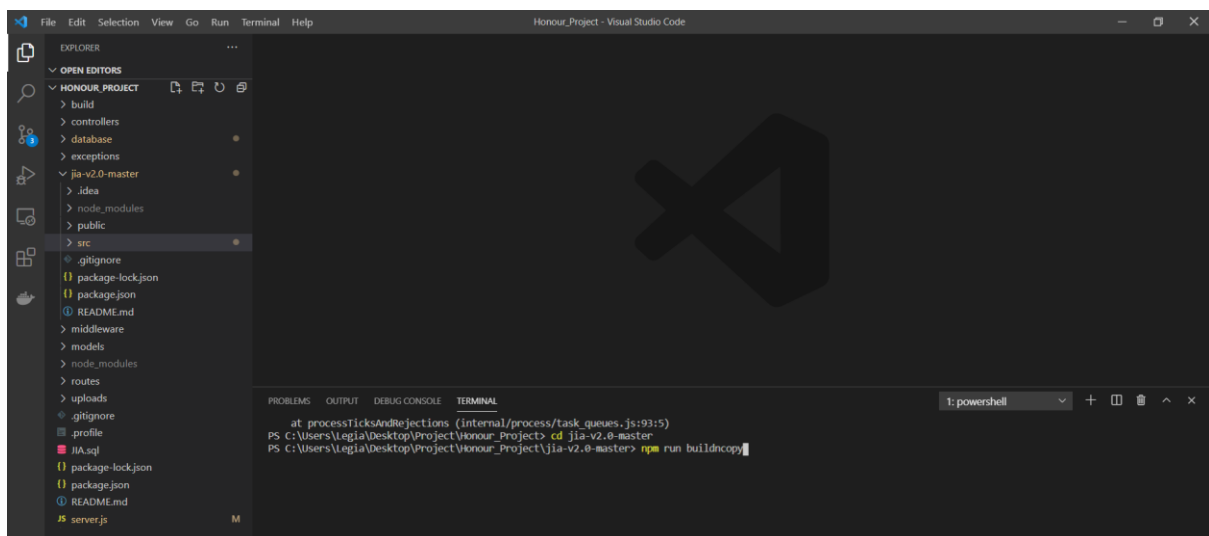


Web Application deployment

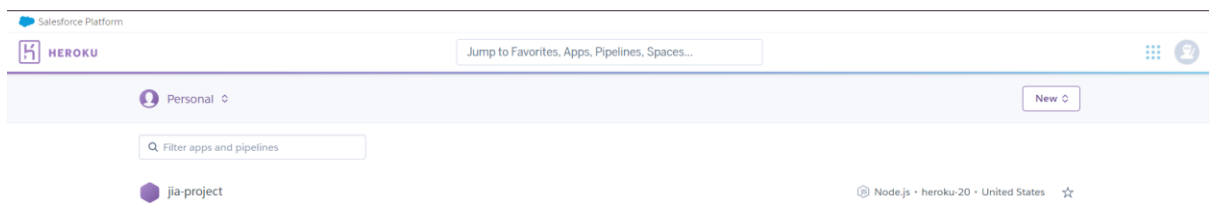
Setups for local database, global database, and client-side can be shown within this document. However, in terms of deployment with Heroku, many of these setups are not necessary for launching the website into the world wide web as these setups are only use if you want to run the web application locally. When deploying the web application, Heroku will be responsible in both hosting the web application and connecting the application to the global database.

When testing the web application hosted by Heroku, if you want to edit the global database that is link to the hosted web application, follow the “Global Server-side” setup until you reach step 6. For any changes to both the backend and frontend of the program, if you want the changes to reflect in the hosted web application then make sure that you push your changes to the main branch of the GitHub repository as Heroku will view the main branch to check for changes to the web application.

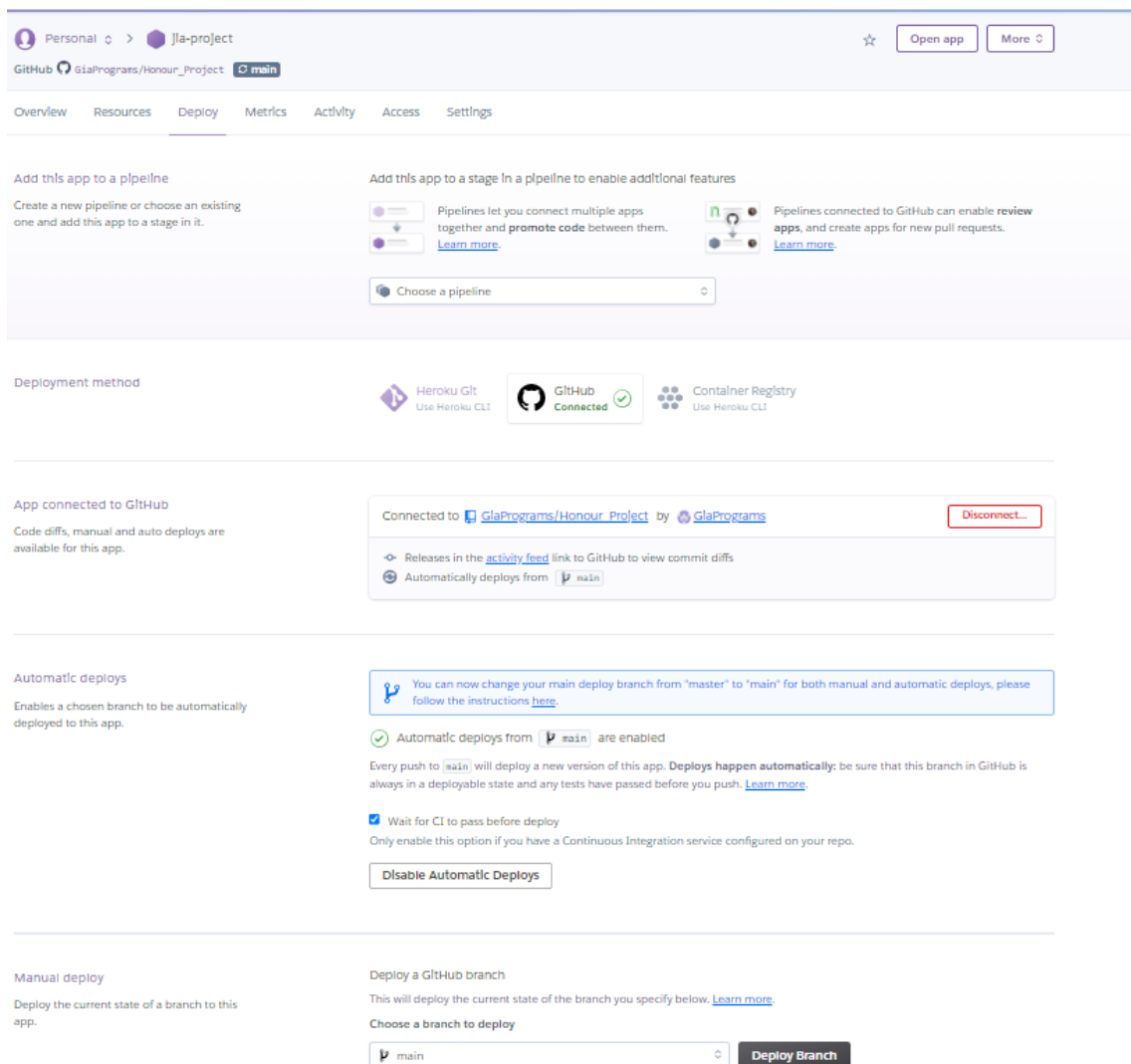
Make sure when you edit the frontend of the program (jia-v2.0-master) that you write the command “npm run buildncopy”. As this command will create a production “build” folder in the backend of the program. This folder allows Heroku to create the visual of the web application that appears in the hosted web application.



Finally, after editing the application, you will need to relaunch the link so the hosted web application can be updated. This can be done by going to the Heroku website and go to the app “jia-project”.



Then go to the deploy tab, make sure that Heroku is link to the main branch in the GitHub repository, and click on the deploy branch. Heroku will build the web application and provide you the link to the hosted web application if you click on the “view” or “open app” button. Here is the following link to view the hosted web application: <https://jia-project.herokuapp.com/>

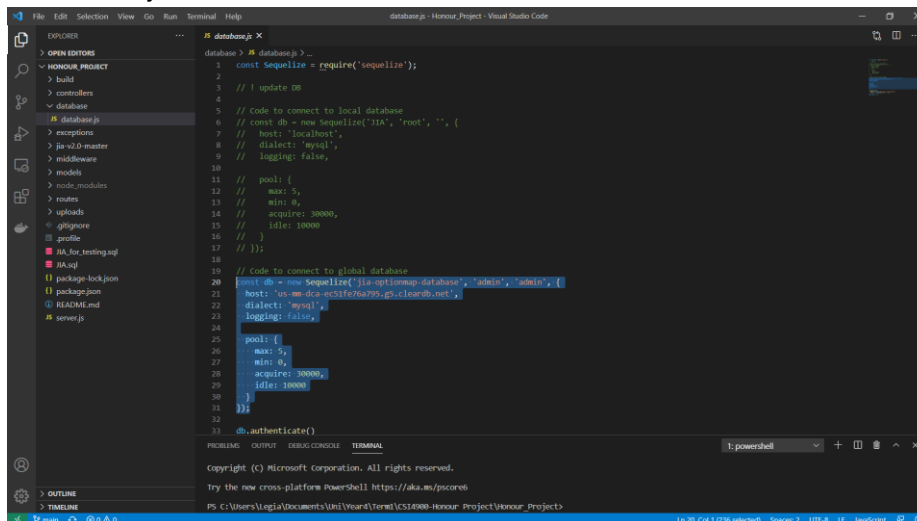


Global Server-side setup

Setting the project to link to the global database. **For this setup, I will use XAMPP and its functions to do the global server-side setup but feel free to use any other local server environment if you prefer a different environment over XAMPP.*

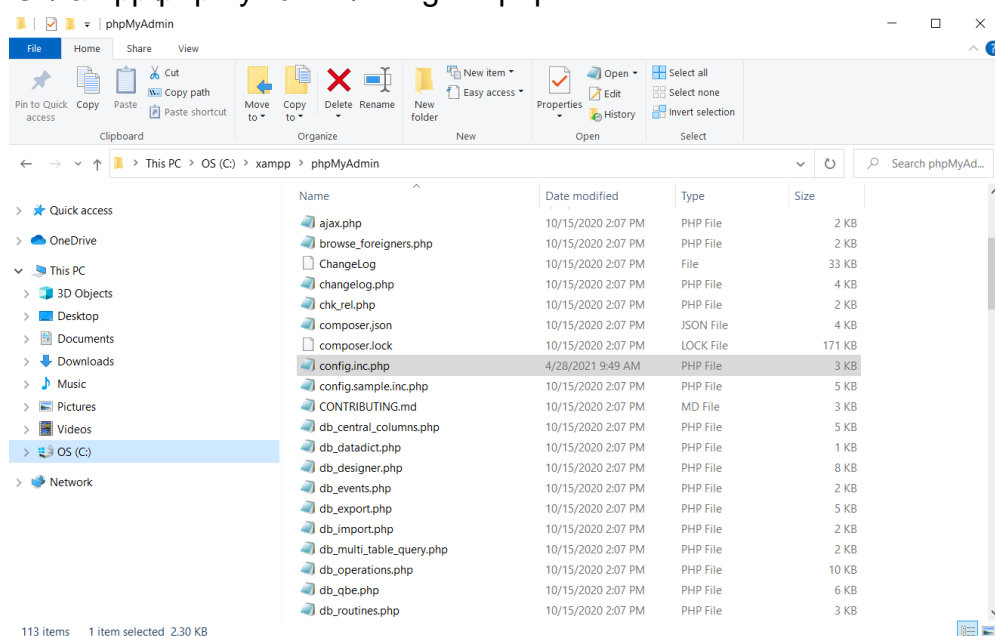
*Before running the global server-side, make sure codes that connect to the global database are uncommented and codes that connect to the local database are commented as shown in the following file.

database.js



```
1 const Sequelize = require('sequelize');
2
3 // ! update DB
4
5 // Code to connect to local database
6 const db = new Sequelize('HIA', 'root', '', {
7   host: 'localhost',
8   dialect: 'mysql',
9   logging: false,
10
11   pool: {
12     max: 5,
13     min: 0,
14     acquire: 30000,
15     idle: 10000,
16   }
17 });
18
19 // Code to connect to global database
20 const db = new Sequelize('jia-opticmap-database', 'admin', 'admin', {
21   host: 'ec2-54-194-104-250.us-east-2.amazonaws.com',
22   dialect: 'mysql',
23   logging: false,
24
25   pool: {
26     max: 5,
27     min: 0,
28     acquire: 30000,
29     idle: 10000,
30   }
31 });
32
33 db.authenticate();
```

1. Assuming your local server environment has been installed and before you open the local server environment, the “config.inc.php” file must be edited to access the global database. This file can be typically found in the file path “C:\xampp\phpMyAdmin\config.inc.php”.



- Access the php file and add the following host, username, password, and auth_type at the end of the file. (*Go to additional notes if credential has changed for the global database)

```
/* Heroku remote server */
```

```
$i++;
```

```
$cfg["Servers"][$i]["host"] = "us-mm-dca-ec51fe76a795.g5.cleardb.net"; //provide hostname
```

```
$cfg["Servers"][$i]["user"] = "admin"; //user name for your remote server
```

```
$cfg["Servers"][$i]["password"] = "admin"; //password
```

```
$cfg["Servers"][$i]["auth_type"] = "config"; // keep it as config
```

```
config.inc.php - Notepad
File Edit Format View Help

/* User for advanced features */
$cfg['Servers'][$i]['controluser'] = 'pma';
$cfg['Servers'][$i]['controlpass'] = '';

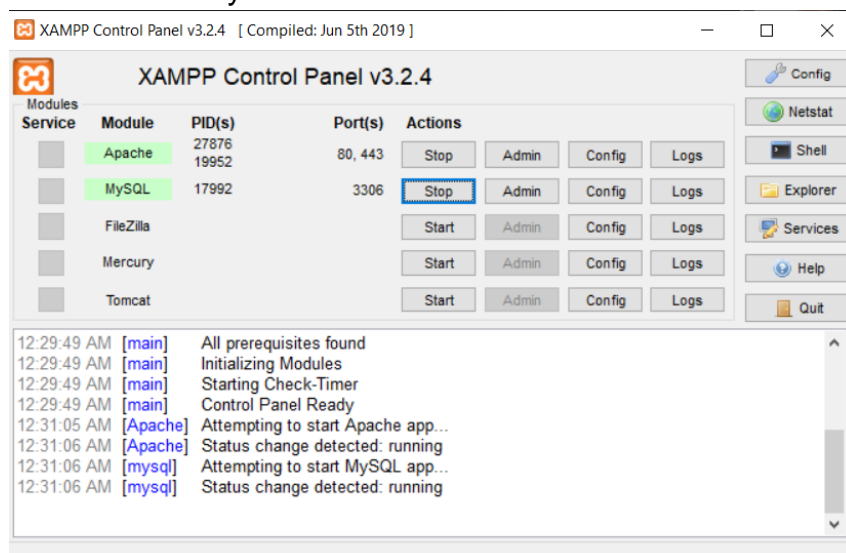
/* Advanced phpMyAdmin features */
$cfg['Servers'][$i]['pmadb'] = 'phpmyadmin';
$cfg['Servers'][$i]['bookmarktable'] = 'pma__bookmark';
$cfg['Servers'][$i]['relation'] = 'pma__relation';
$cfg['Servers'][$i]['table_info'] = 'pma__table_info';
$cfg['Servers'][$i]['table_coords'] = 'pma__table_coords';
$cfg['Servers'][$i]['pdf_pages'] = 'pma__pdf_pages';
$cfg['Servers'][$i]['column_info'] = 'pma__column_info';
$cfg['Servers'][$i]['history'] = 'pma__history';
$cfg['Servers'][$i]['designer_coords'] = 'pma__designer_coords';
$cfg['Servers'][$i]['tracking'] = 'pma__tracking';
$cfg['Servers'][$i]['userconfig'] = 'pma__userconfig';
$cfg['Servers'][$i]['recent'] = 'pma__recent';
$cfg['Servers'][$i]['table_uiprefs'] = 'pma__table_uiprefs';
$cfg['Servers'][$i]['users'] = 'pma__users';
$cfg['Servers'][$i]['usergroups'] = 'pma__usergroups';
$cfg['Servers'][$i]['navigationhiding'] = 'pma__navigationhiding';
$cfg['Servers'][$i]['savedsearches'] = 'pma__savedsearches';
$cfg['Servers'][$i]['central_columns'] = 'pma__central_columns';
$cfg['Servers'][$i]['designer_settings'] = 'pma__designer_settings';
$cfg['Servers'][$i]['export_templates'] = 'pma__export_templates';
$cfg['Servers'][$i]['favorite'] = 'pma__favorite';

/*
 * End of servers configuration
 */

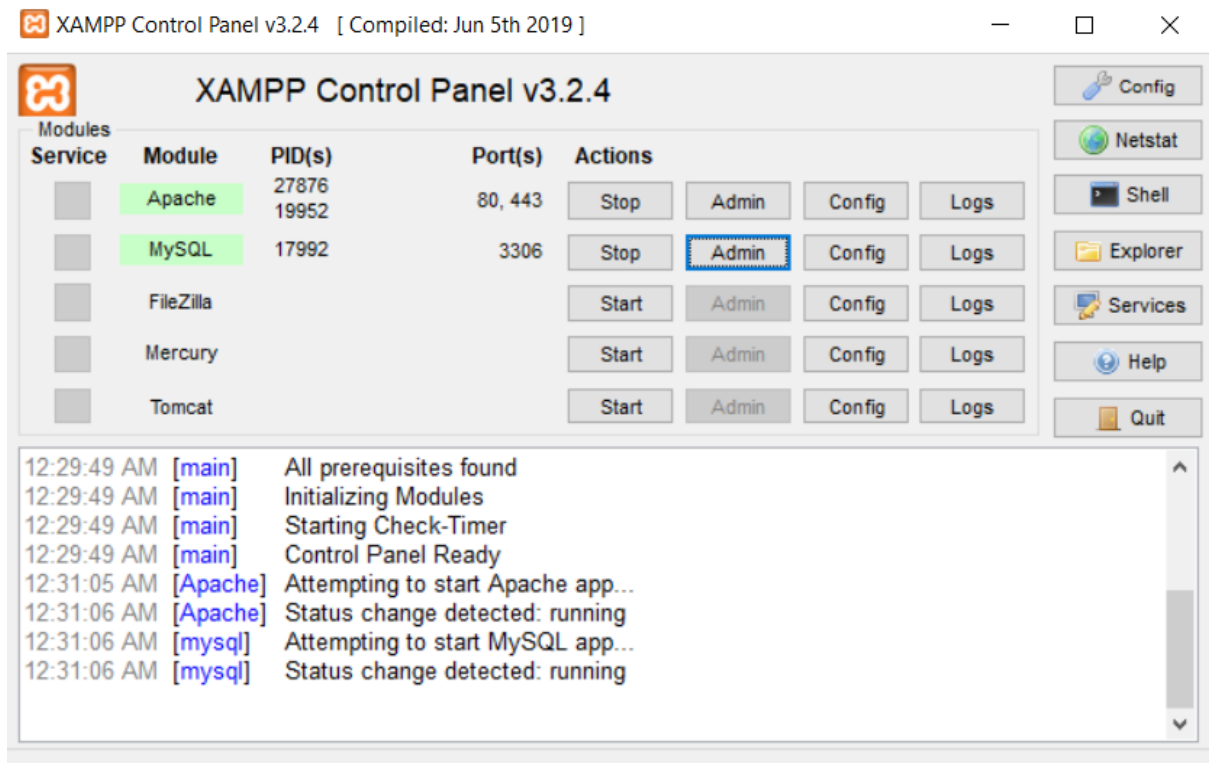
/* Heroku remote server */
$i++;
$cfg["Servers"][$i]["host"] = "us-mm-dca-ec51fe76a795.g5.cleardb.net"; //provide hostname
$cfg["Servers"][$i]["user"] = "admin"; //user name for your remote server
$cfg["Servers"][$i]["password"] = "admin"; //password
$cfg["Servers"][$i]["auth_type"] = "config"; // keep it as config

Ln 1, Col 1 100% Unix (LF) UTF-8
```

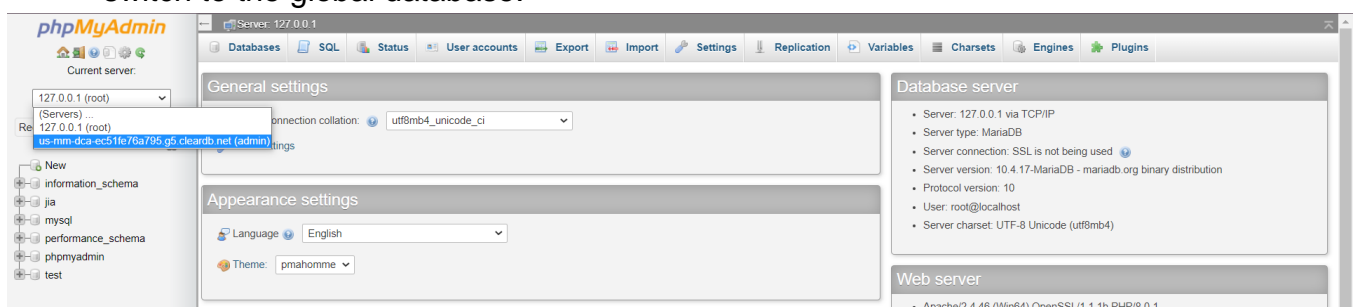
- After editing the config file, run your local server environment then start both your web server and your database service.



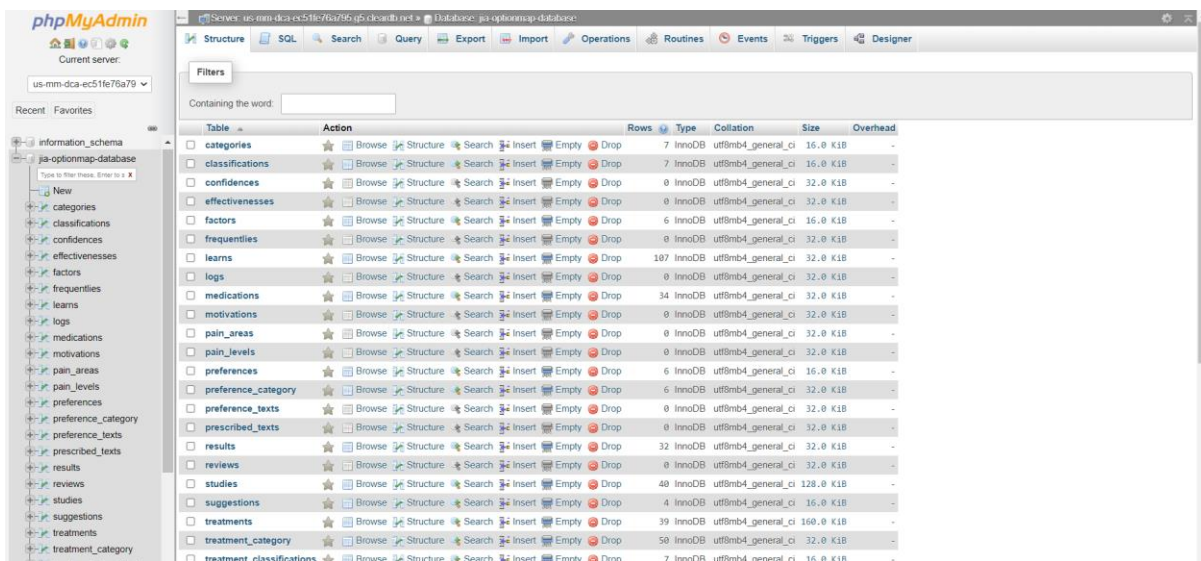
- Click the “Admin” button in the MySQL row to access the mysql database



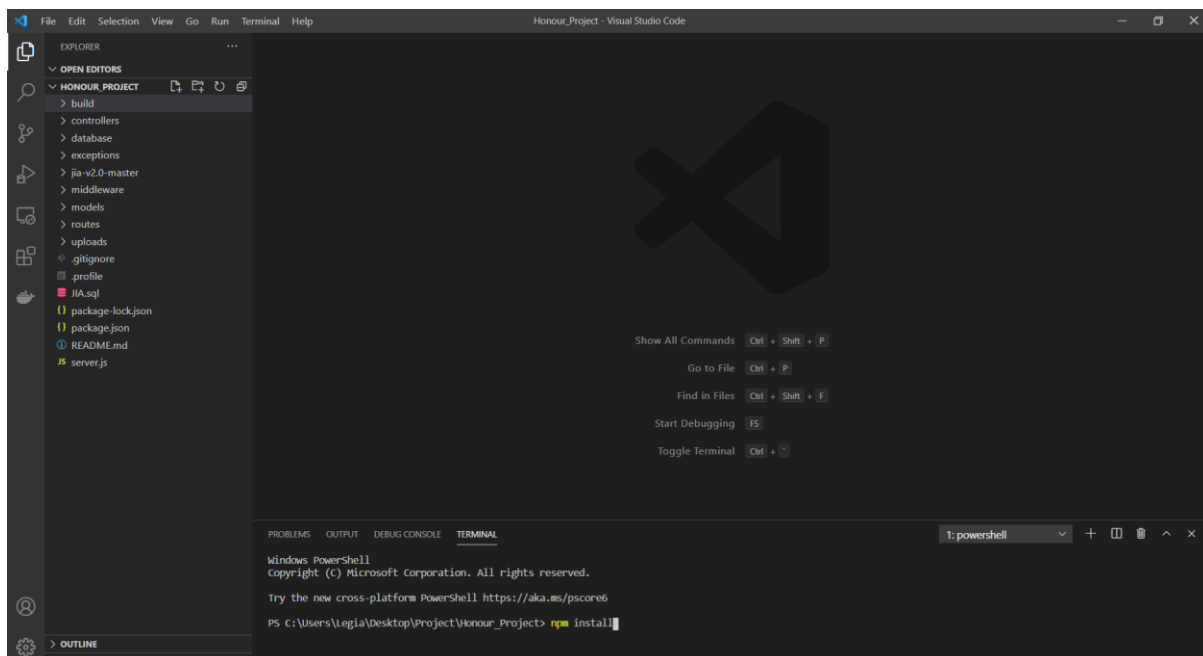
- When you enter the phpMyAdmin homepage, go to the current server list and switch to the global database.



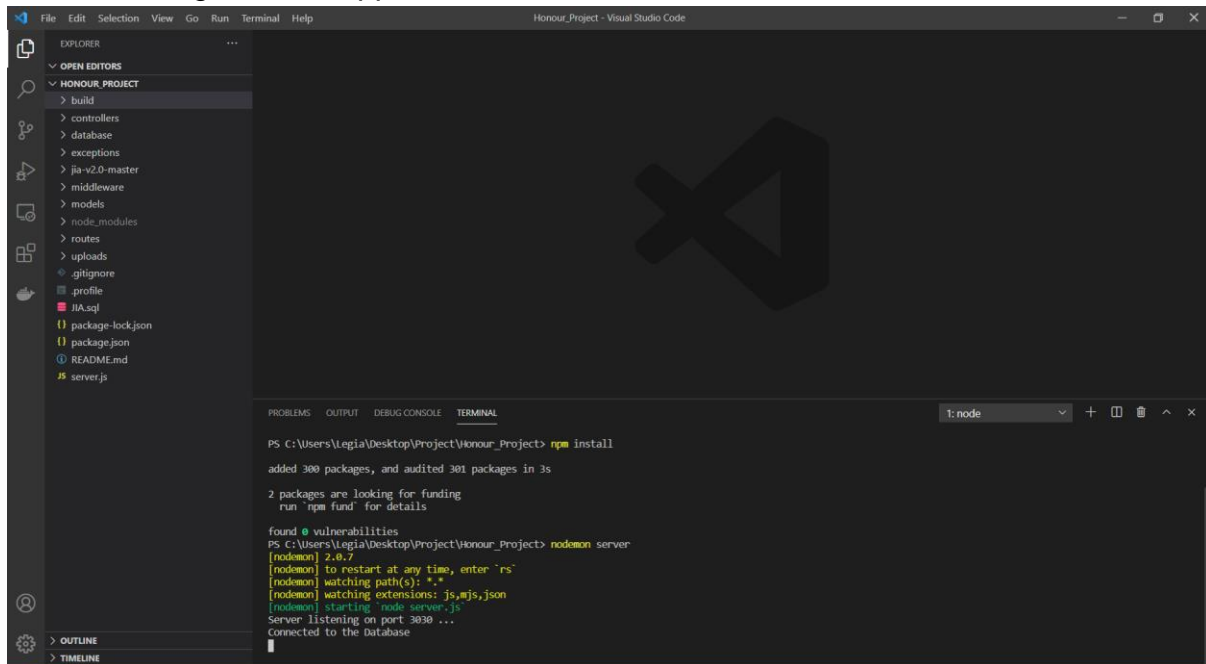
6. After switching page, click on the global database “jia-optionmap-database”. If you see the tables, that means you are connected to the database and now able to add, alter, and delete data from the global database.



7. After confirming your connection to the global dataset, create a terminal in the root folder of your project and input “npm install”. A node_modules folder should be created.



8. Then input “nodemon server”. If you get the following result, then your project is now connected to the global database. *Keep this terminal running when running the web application



```
PS C:\Users\Legia\Desktop\Project\Honour_Project> npm install
added 300 packages, and audited 301 packages in 3s

2 packages are looking for funding
  run `npm fund` for details

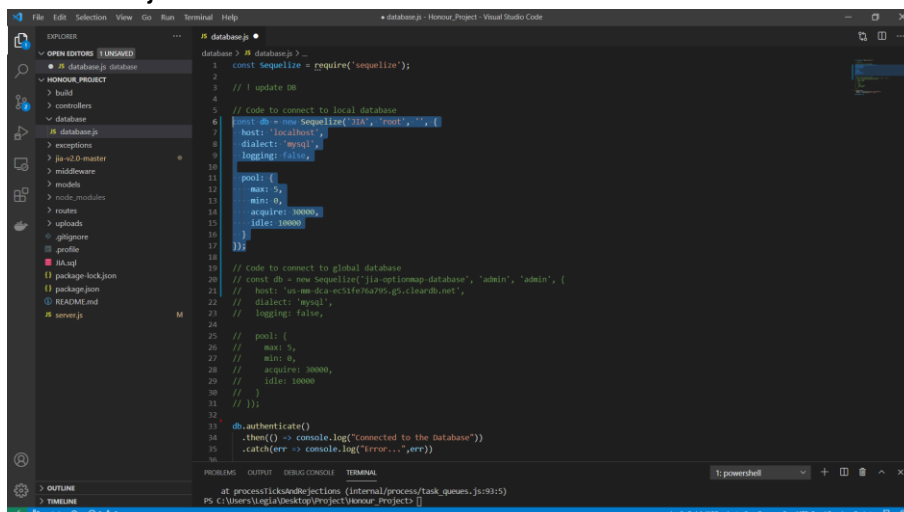
found 0 vulnerabilities
PS C:\Users\Legia\Desktop\Project\Honour_Project> nodemon server
[nodemon] 2.0.7
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,json
[nodemon] starting 'node server.js'
Server listening on port 3030 ...
Connected to the Database
```

Local Server-side setup

Setting the project to link to the local database. **For this setup, I will use XAMPP and its functions to do the global server-side setup but feel free to use any other local server environment if you prefer a different environment over XAMPP.*

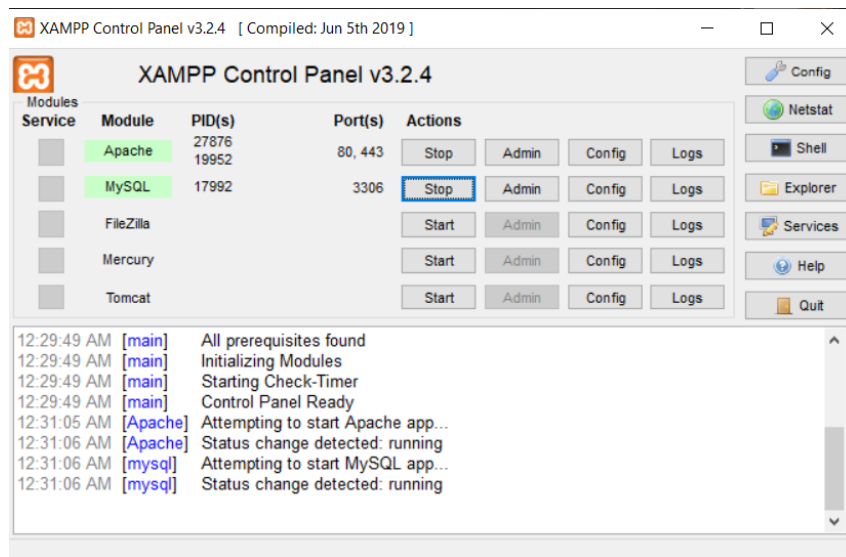
**Before running the local server-side, make sure codes that connect to the local database are uncommented and codes that connect to the global database are commented as shown in the following file.*

database.js

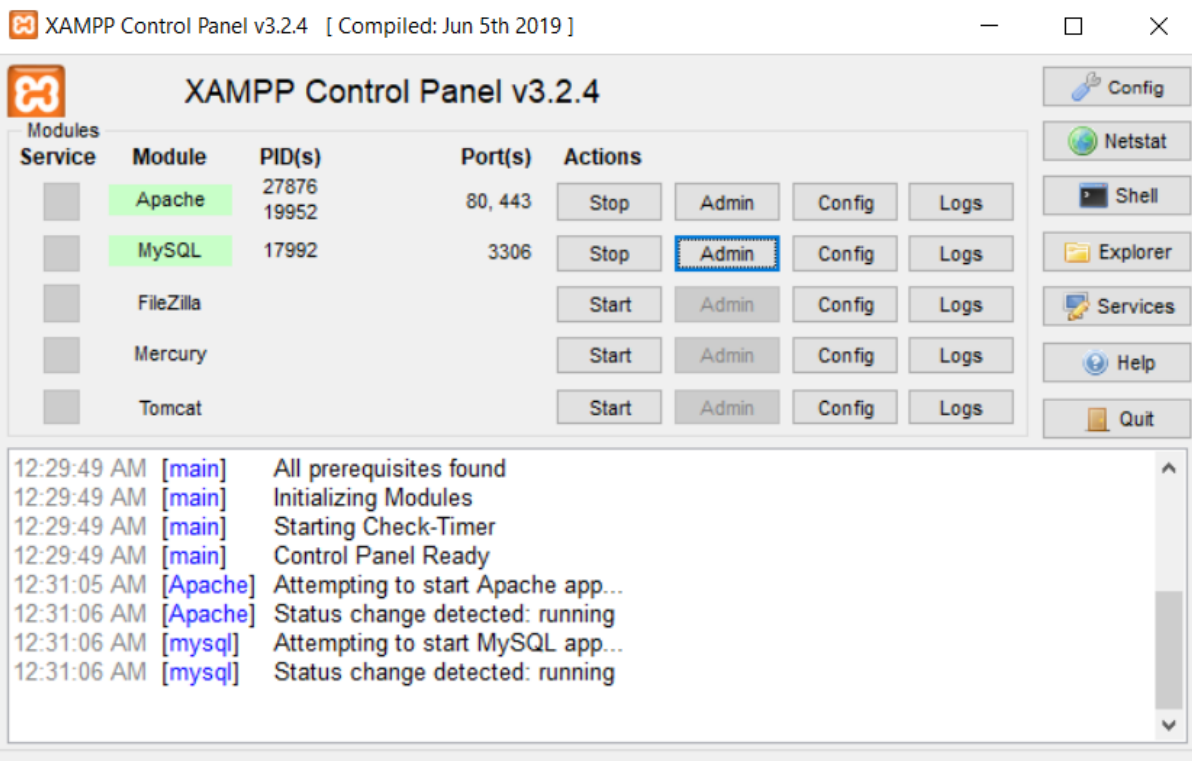


```
database > database.js
1 const Sequelize = require('sequelize');
2
3 // I update DB
4
5 // Code to connect to local database
6 const db = new Sequelize('jia', 'root', '', {
7   host: 'localhost',
8   dialect: 'mysql',
9   logging: false
10 });
11
12 pool: {
13   max: 5,
14   min: 0,
15   acquire: 30000,
16   idle: 10000
17 }
18
19 // Code to connect to global database
20 const db = new Sequelize('jia-optionmap-database', 'admin', 'admin', {
21   host: 'us-mw-dca-ec3f678a795-g5.cleardb.net',
22   dialect: 'mysql',
23   logging: false,
24 });
25
26 pool: {
27   max: 5,
28   min: 0,
29   acquire: 30000,
30   idle: 10000
31 }
32
33 db.authenticate()
34 .then(() => console.log('connected to the database'))
35 .catch(err => console.log('error...', err));
36
```

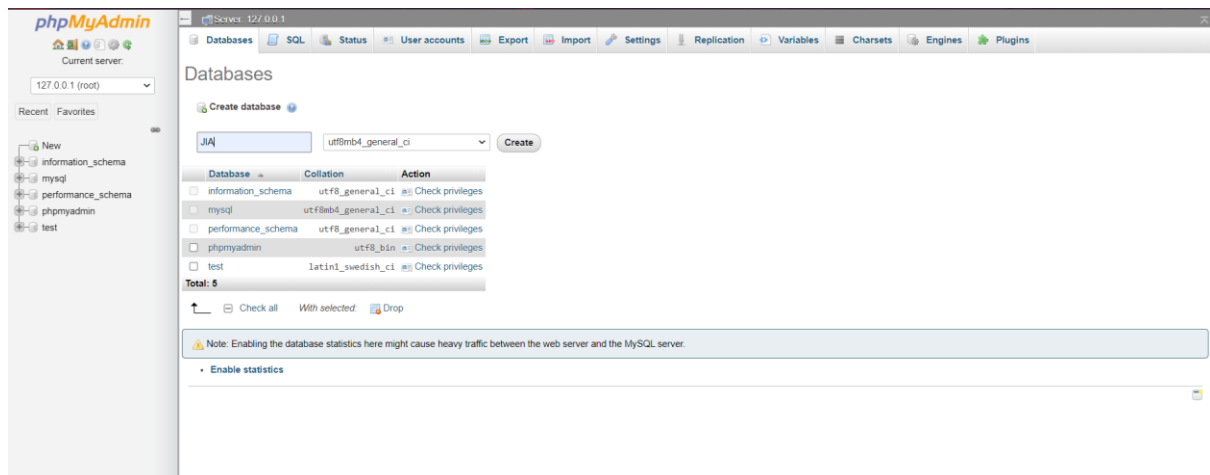
1. Assuming your local server environment has been installed, run your local server environment then start both your web server and your database service.



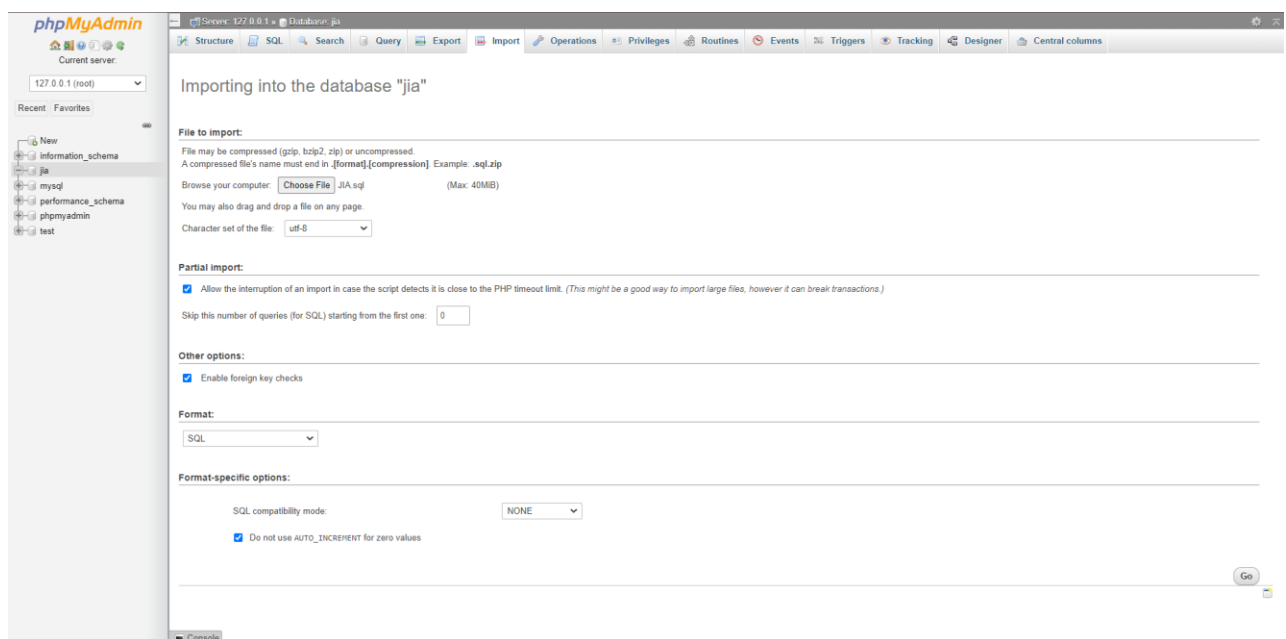
2. Click the “Admin” button in the MySQL row to access the mysql database



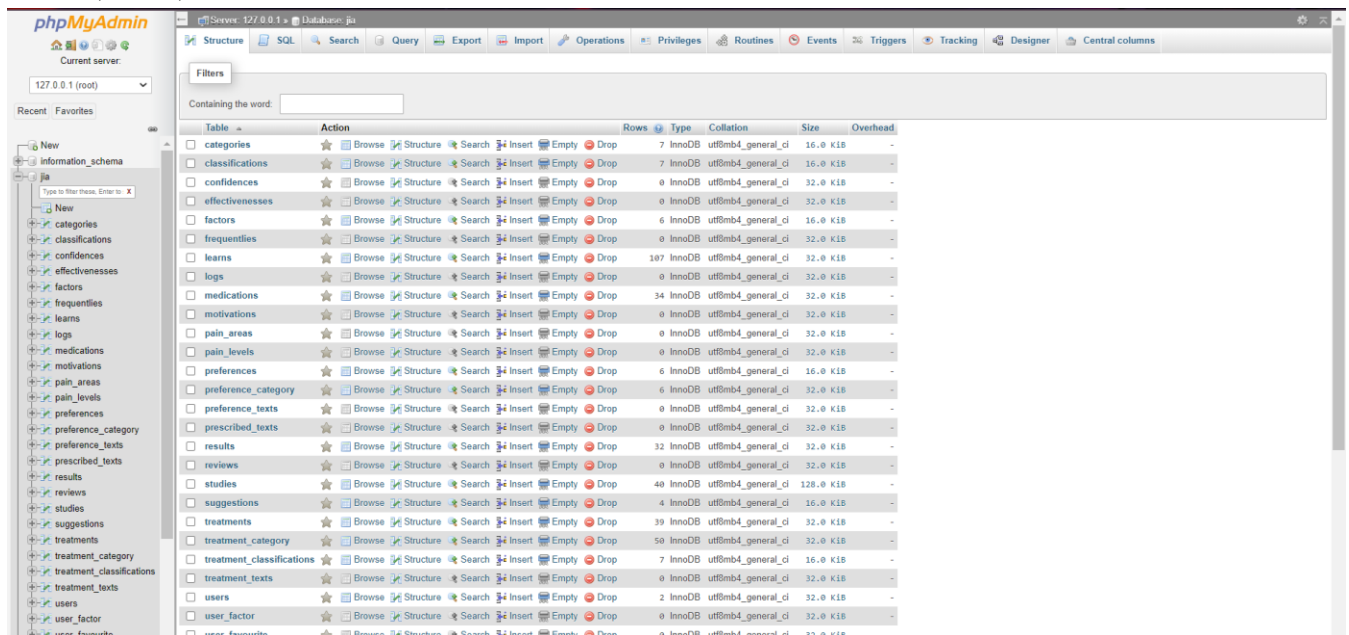
- When you enter the phpMyAdmin homepage, click on the “New” link then click on the title box to write the name “JIA” and press the create button to create your local database.



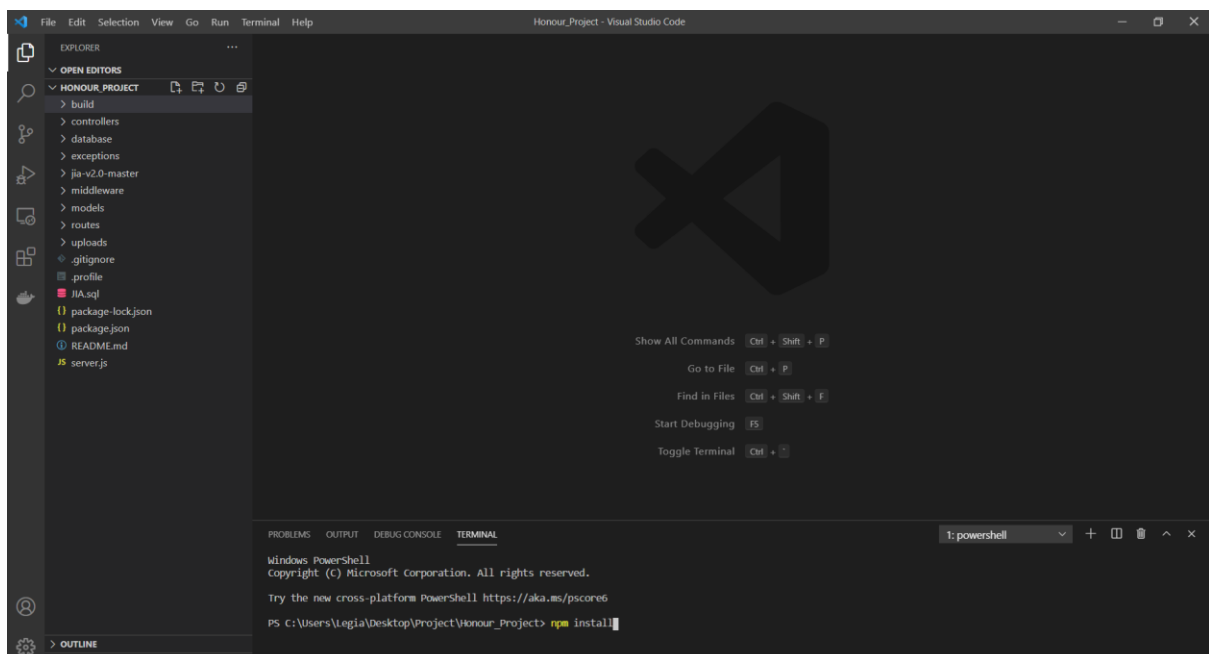
- Click on the “JIA” link and click the import tab. From there you can choose the file and import the JIA.sql file (the file should be provided within the project folder). Then press “Go” to create the database.



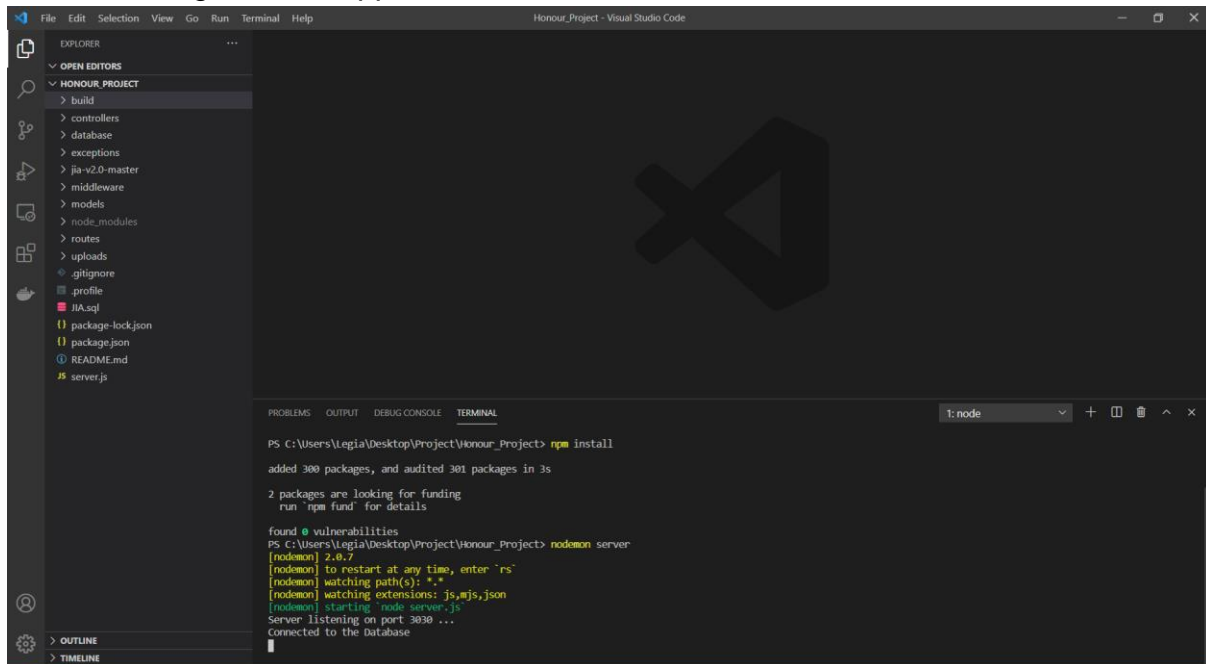
5. If you see the tables, that means you are connected to the database and now able to add, alter, and delete data from the local database.



6. After confirming your connection to the local dataset, create a terminal in the root folder of your project and input “npm install”. A node_modules folder should be created.



7. Then input “nodemon server”. If you get the following result, then your project is now connected to the global database. *Keep this terminal running when running the web application



```
PS C:\Users\Legia\Desktop\Project\Honour_Project> npm install
added 300 packages, and audited 301 packages in 3s

2 packages are looking for funding
  run `npm fund` for details

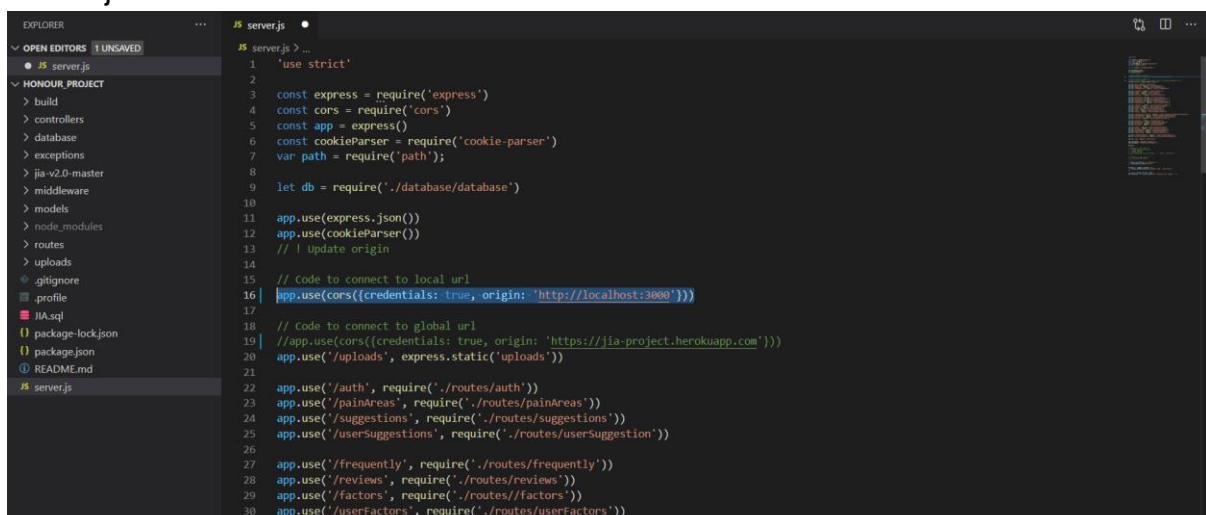
found 0 vulnerabilities
PS C:\Users\Legia\Desktop\Project\Honour_Project> nodemon server
[nodemon] 2.0.7
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,json
[nodemon] starting 'node server.js'
Server listening on port 3030 ...
Connected to the Database
```

Client-side set-up

*This setup is only use if you want to run the webpage locally. Otherwise you can use the link <https://jia-project.herokuapp.com/> to view the webpage as this link is being run by Heroku.

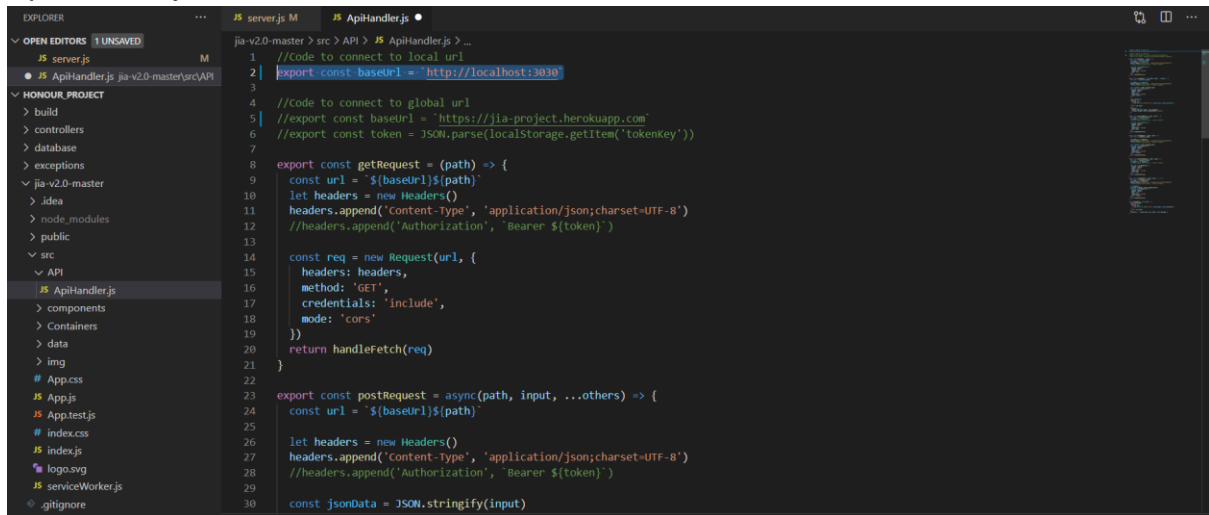
*Before running the client-side make sure codes that connect to the local url are uncommented and codes that connect to the global url are commented as shown each of the following files.

server.js



```
1 'use strict'
2
3 const express = require('express')
4 const cors = require('cors')
5 const app = express()
6 const cookieParser = require('cookie-parser')
7 var path = require('path')
8
9 let db = require('./database/database')
10
11 app.use(express.json())
12 app.use(cookieParser())
13 // ! Update origin
14
15 // Code to connect to local url
16 app.use(cors({credentials: true, origin: 'http://localhost:3000'}))
17
18 // Code to connect to global url
19 // app.use(cors({credentials: true, origin: 'https://jia-project.herokuapp.com'}))
20 app.use('/uploads', express.static('uploads'))
21
22 app.use('/auth', require('./routes/auth'))
23 app.use('/painAreas', require('./routes/painAreas'))
24 app.use('/suggestions', require('./routes/suggestions'))
25 app.use('/userSuggestions', require('./routes/userSuggestion'))
26
27 app.use('/frequently', require('./routes/frequently'))
28 app.use('/reviews', require('./routes/reviews'))
29 app.use('/factors', require('./routes/factors'))
30 app.use('/userFactors', require('./routes/userFactors'))
```

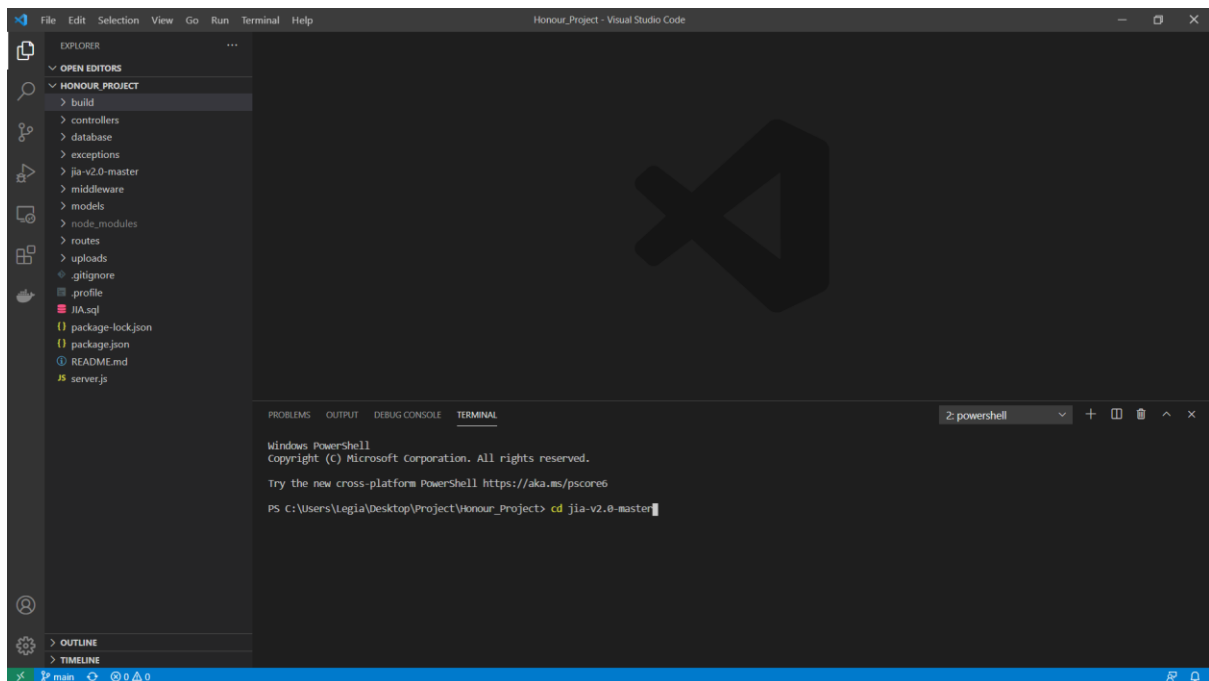
ApiHandler.js



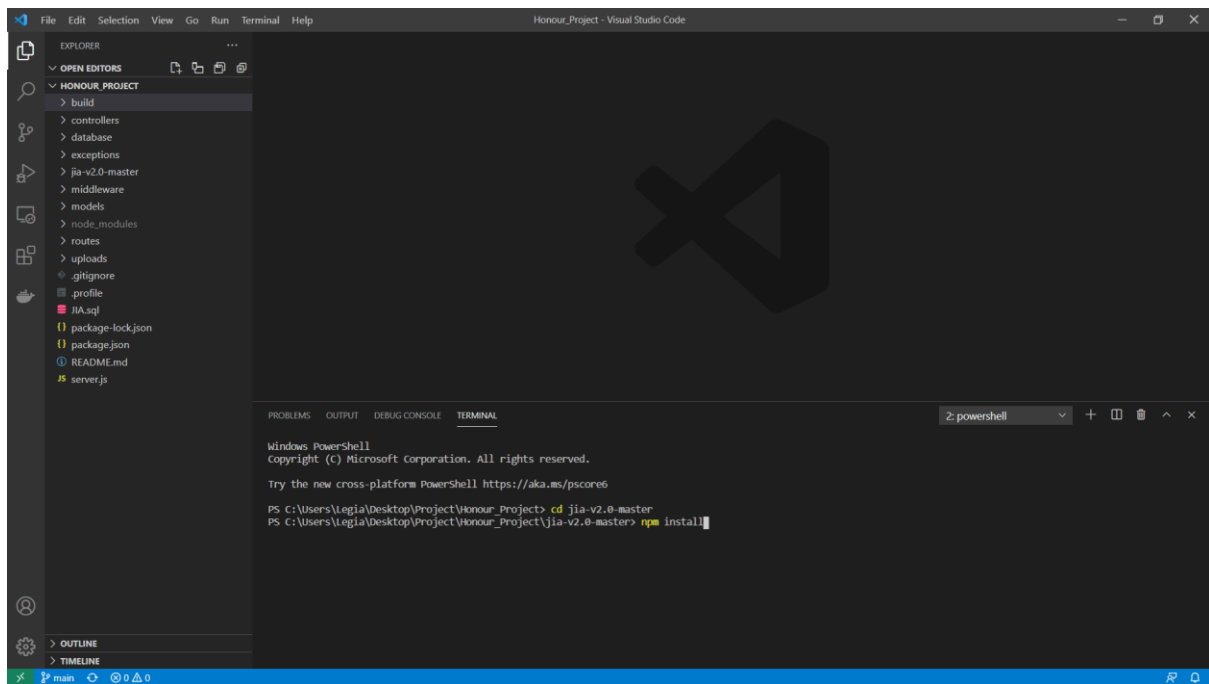
The screenshot shows a Visual Studio Code editor with a project named 'HONOUR_PROJECT'. The file explorer on the left shows the project structure, including folders like 'build', 'controllers', 'database', 'exceptions', 'jia-v2.0-master', 'idea', 'node_modules', 'public', 'src', and 'API'. The 'API' folder is expanded, showing 'ApiHandler.js'. The main editor displays the content of 'ApiHandler.js', which is a JavaScript file for handling API requests. The code includes comments for connecting to local and global URLs, and functions for GET and POST requests.

```
1 //Code to connect to local url
2 export const baseUrl = 'http://localhost:3030'
3
4 //Code to connect to global url
5 //export const baseUrl = 'https://jia-project.herokuapp.com'
6 //export const token = JSON.parse(localStorage.getItem('tokenKey'))
7
8 export const getRequest = (path) => {
9   const url = `${baseUrl}${path}`
10  let headers = new Headers()
11  headers.append('Content-Type', 'application/json;charset=UTF-8')
12  //headers.append('Authorization', 'Bearer ${token}')
13
14  const req = new Request(url, {
15    headers: headers,
16    method: 'GET',
17    credentials: 'include',
18    mode: 'cors'
19  })
20  return handleFetch(req)
21 }
22
23 export const postRequest = async(path, input, ...others) => {
24   const url = `${baseUrl}${path}`
25
26   let headers = new Headers()
27   headers.append('Content-Type', 'application/json;charset=UTF-8')
28   //headers.append('Authorization', 'Bearer ${token}')
29
30   const jsonData = JSON.stringify(input)
```

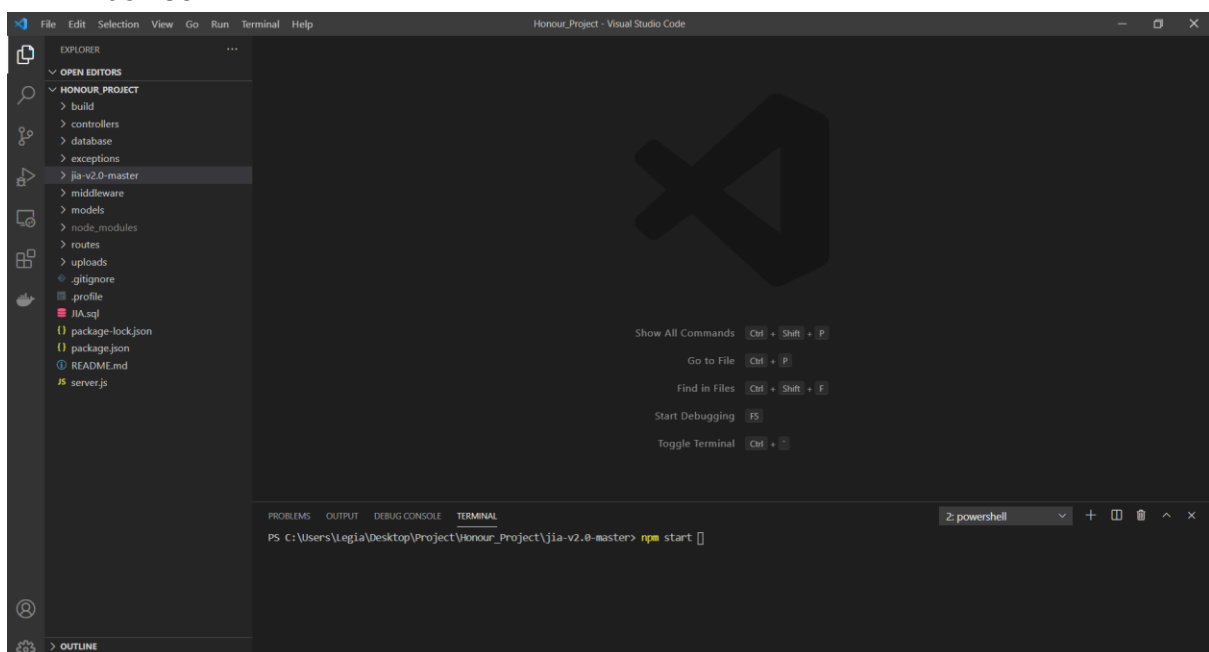
1. Create a terminal in the root folder of your project and cd to the folder “jia-v2.0-master”.



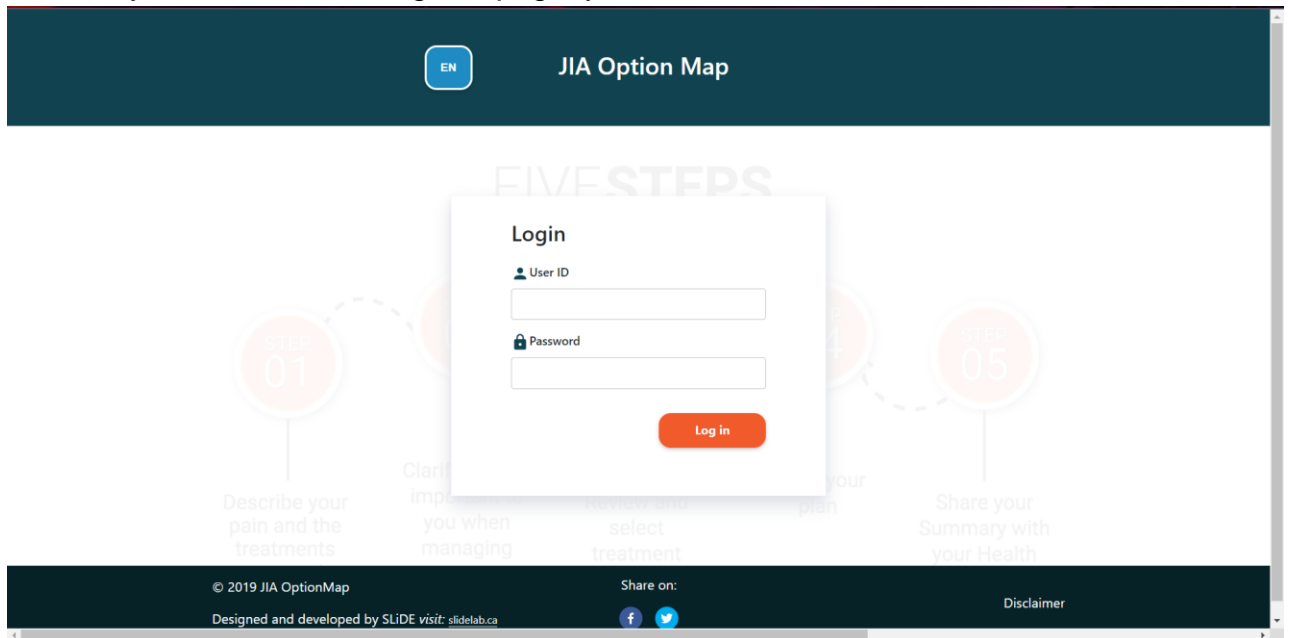
2. Run “npm install” in the terminal to install all project dependencies. A node_modules folder should be created.



3. Input “npm start” to the terminal and the web application should open in your browser.



4. If you see the following webpage, you can now access the website.



Web app admin account credentials

Username / user ID: admin

Password: admin

Web app admin account credentials

Username / user ID: user

Password: user

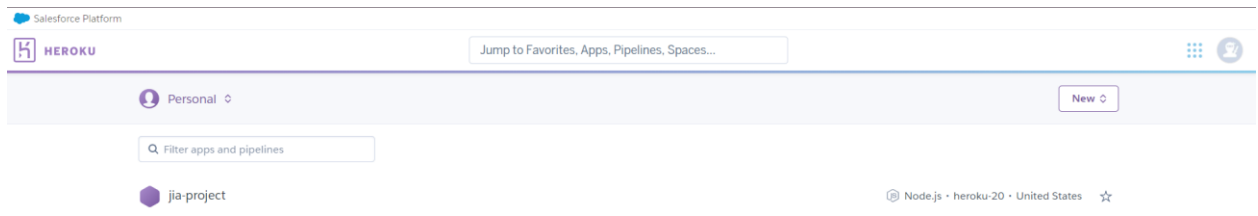
Additional Notes

*The following flowchart showcase pathways certain results that users should expect to see when choosing certain treatments and medications. (Some of the values are outdated but the paths to the results are still relevant)

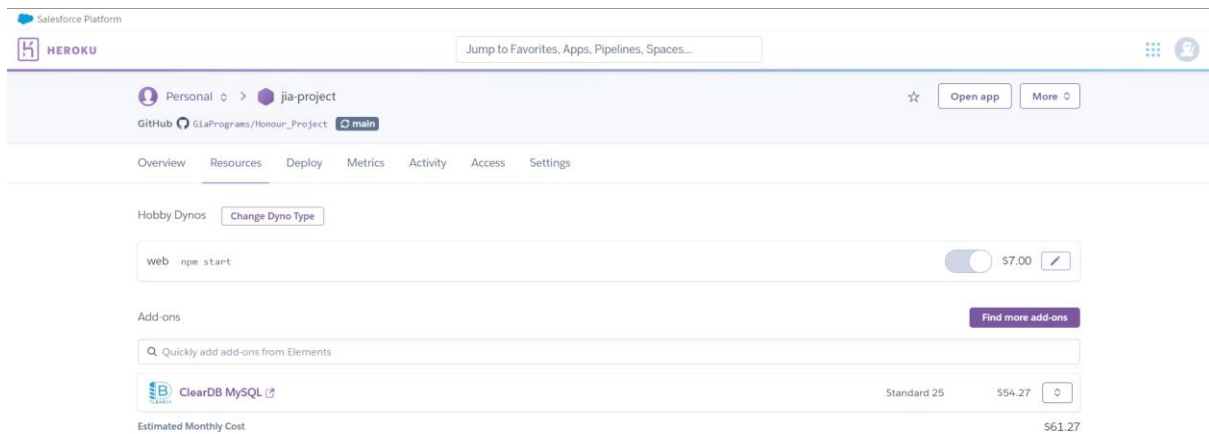
Flowcharts: <https://whimsical.com/jia-THM5hSUGUQmvyoJzdpA9pd>

*If the credentials for the global database have changed, do the following steps to get the new credentials.

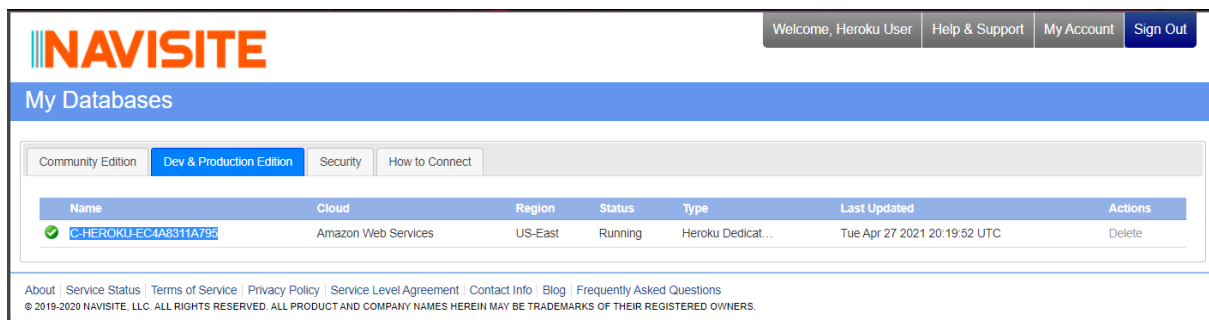
1. Go to the Heroku website and click the “jia-project” app



2. Go to the resource tab and click the ClearDB MySQL add-on



3. The NAVISITE website will open. Go to the “Dev & Production Edition” tab and click on the datastore link.



4. The datastore details will open. In this page, the host will be given as a Public DNS.

Welcome, Heroku User
Help & Support
My Account
Sign Out

C-HEROKU-EC4A8311A795

Dashboard
Details
Monitoring
Infrastructure
Databases
Slow Query Log
Connections
Support

Datastore Details

Public DNS [us-mm-dca-ec51fe76a795.q5.cleardb.net](#)
Cloud Amazon Web Services
Region US-East
Type Heroku Dedicated
Status Running
CDB Version G5
Tenency Single Instance/Dedicated

Engine Version MySQL Community Server (GPL) version 5.7.31-log
InnoDB Version 5.7.31
Protocol Version 10
Architecture x86_64
Operating System Linux
Launch time Tue Apr 27 2021 20:19:52 UTC (128 hours)

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- Go to the “Databases” tab to access the global database and acquire the database name.

Welcome, Heroku User
Help & Support
My Account
Sign Out

C-HEROKU-EC4A8311A795

Dashboard
Details
Monitoring
Infrastructure
Databases
Slow Query Log
Connections
Support

Databases

Name
Size (MB)
Character Set
Collation
Actions

[lia-optionmap-database](#)
1.21875000
utf8
utf8_general_ci
Delete

Create Database

[About](#) | [Service Status](#) | [Terms of Service](#) | [Privacy Policy](#) | [Service Level Agreement](#) | [Contact Info](#) | [Blog](#) | [Frequently Asked Questions](#)
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- Click on the database name and you will get both the username and password for the global database.

Database details

Connection Details Backups

jja-optionmap-database Connection Details

Cluster Gateway Information

| Hostname | TCP Port |
|--------------------------------------|----------|
| No routers exist in this deployment. | |

Access Credentials

| | |
|----------|---|
| Username | admin |
| Password | (click to show) (reset) |

Dashboard

Databases

Name

jja-optionmap-<

Create Database