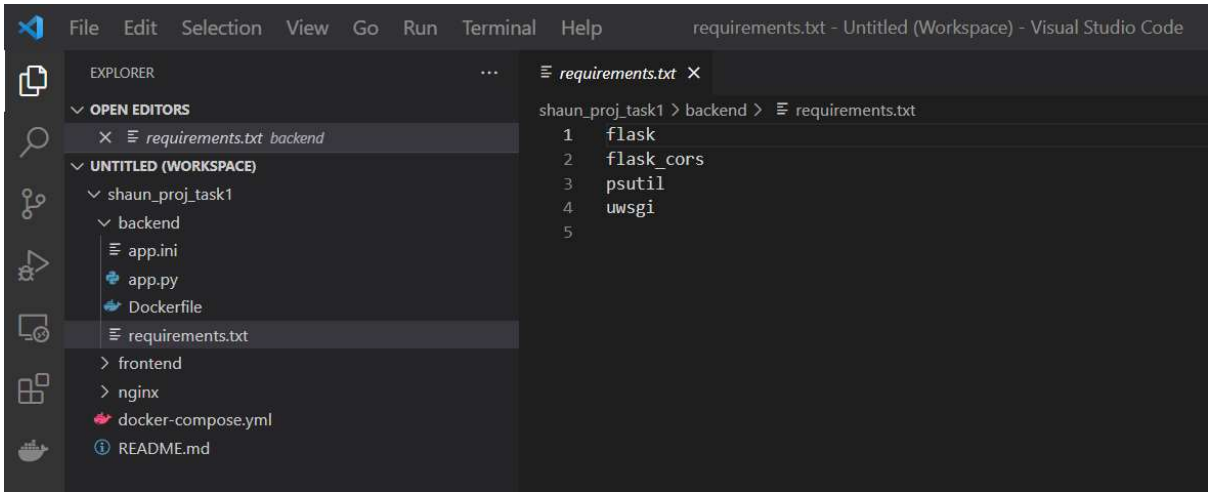
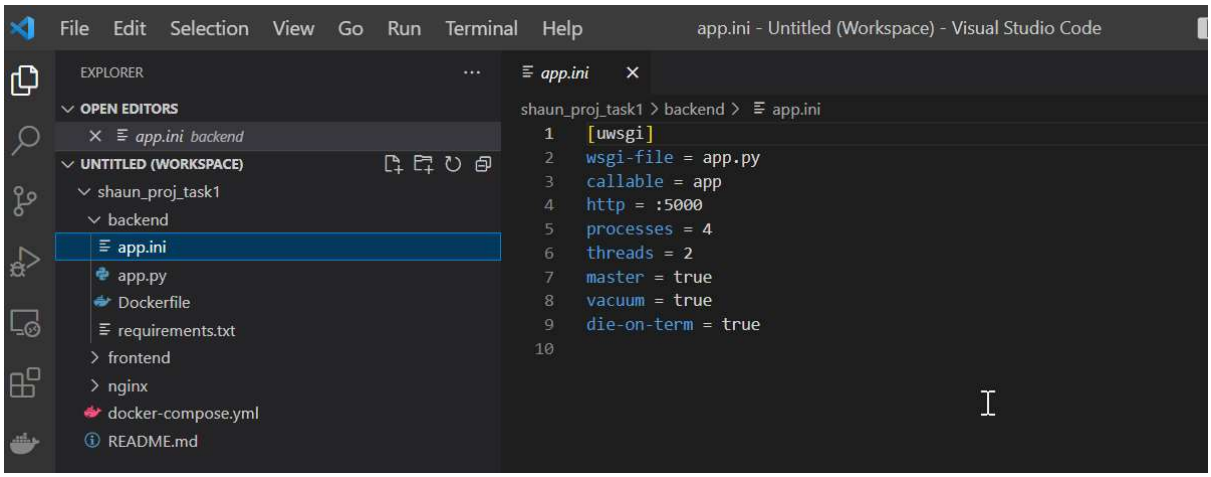
Task #1 Dockerize the Application

1. Setup backend container (flask).

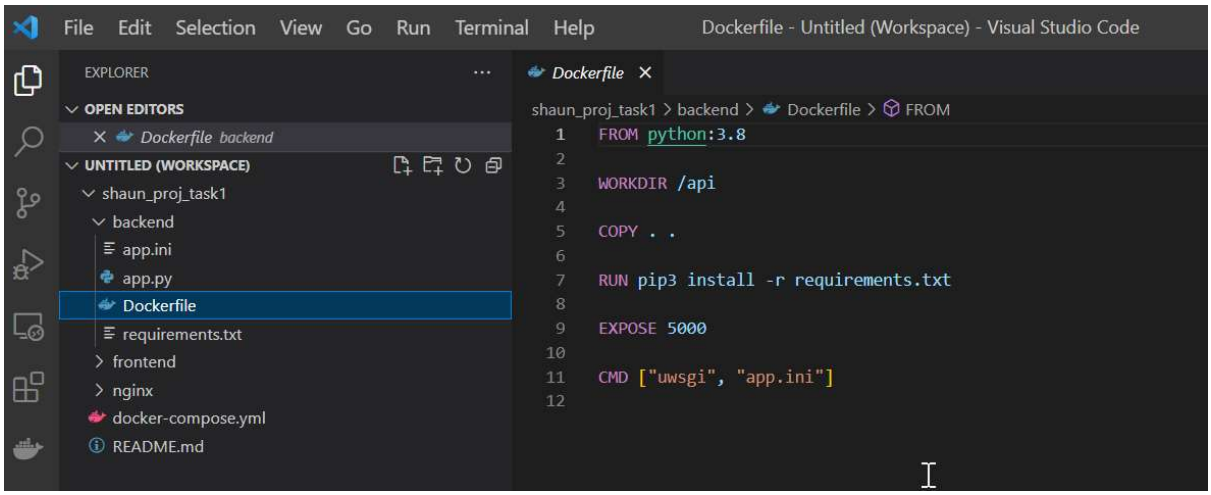
1a. Prepare requirement.txt for required modules:



1b. Configure app.ini (use uWSGI Server to serve the flask application)

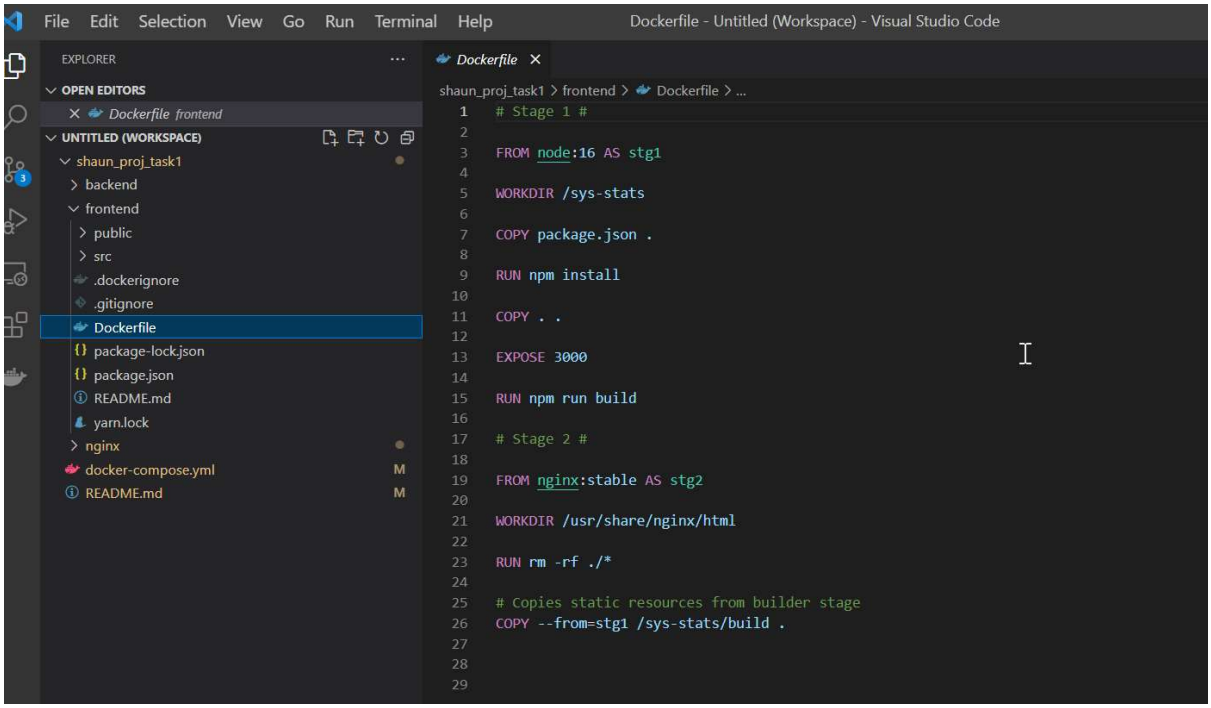


1c. Configure backend(flask) dockerfile



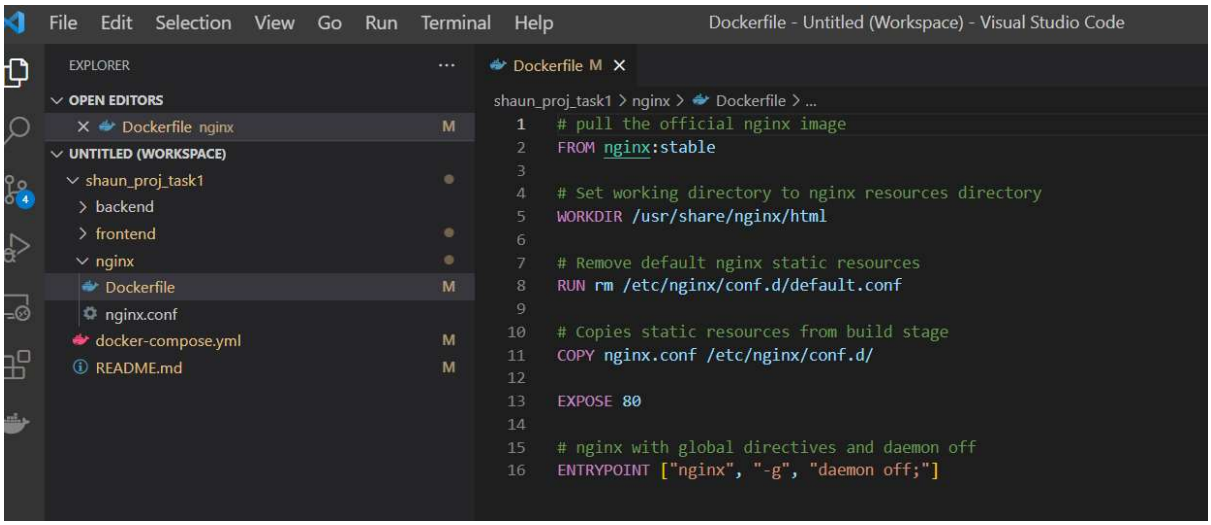
2. Setup frontend container (react)

2a. Setup multistage dockerfile for frontend.

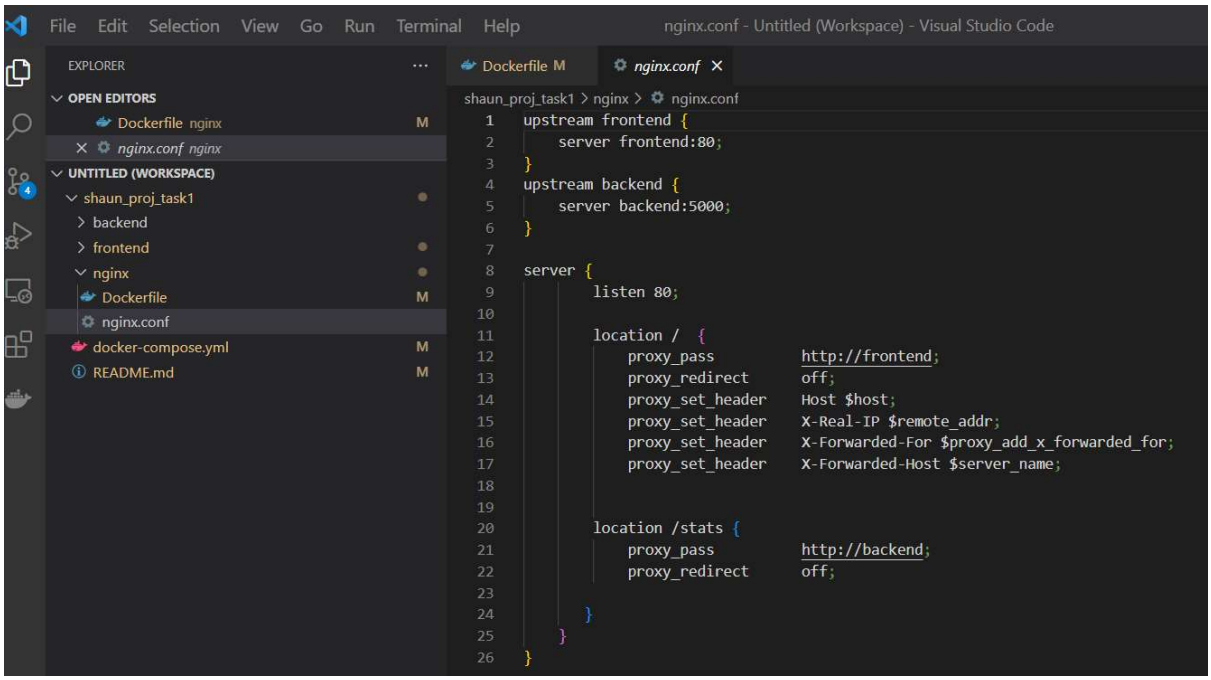


3. Setup nginx container

3a. Configre nginx dockerfile

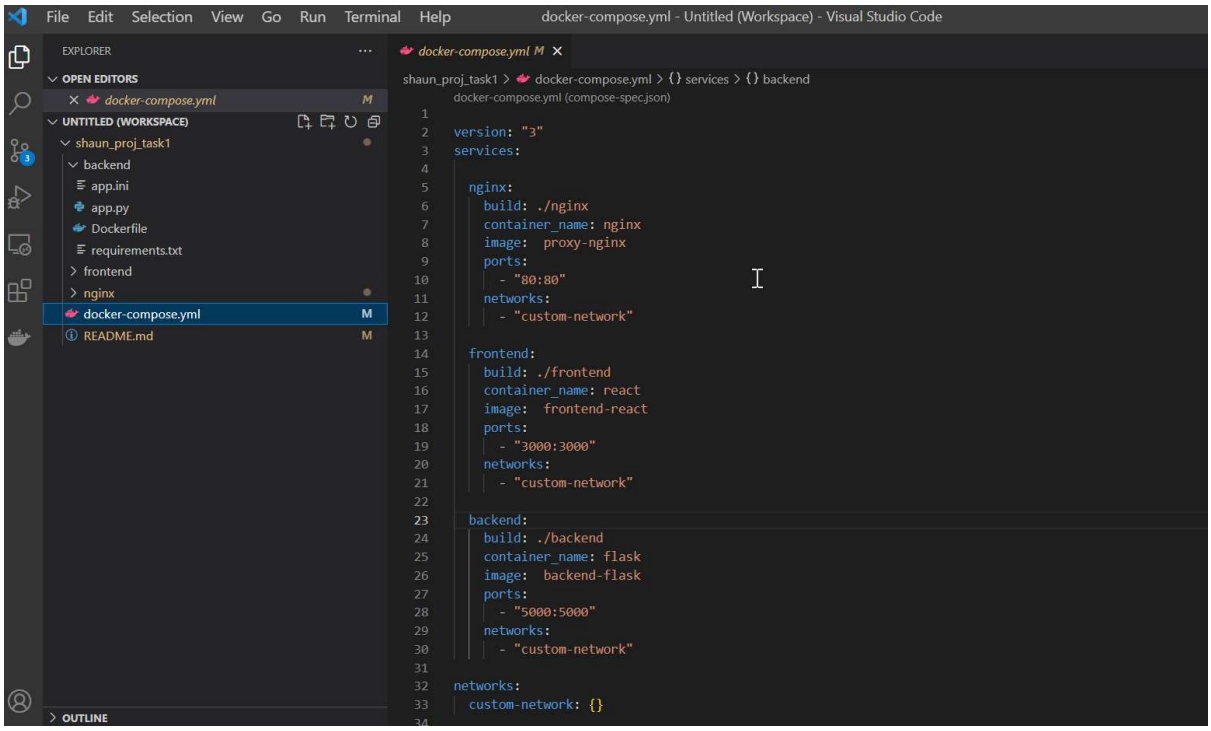


3b. Configure nginx.conf configuration file

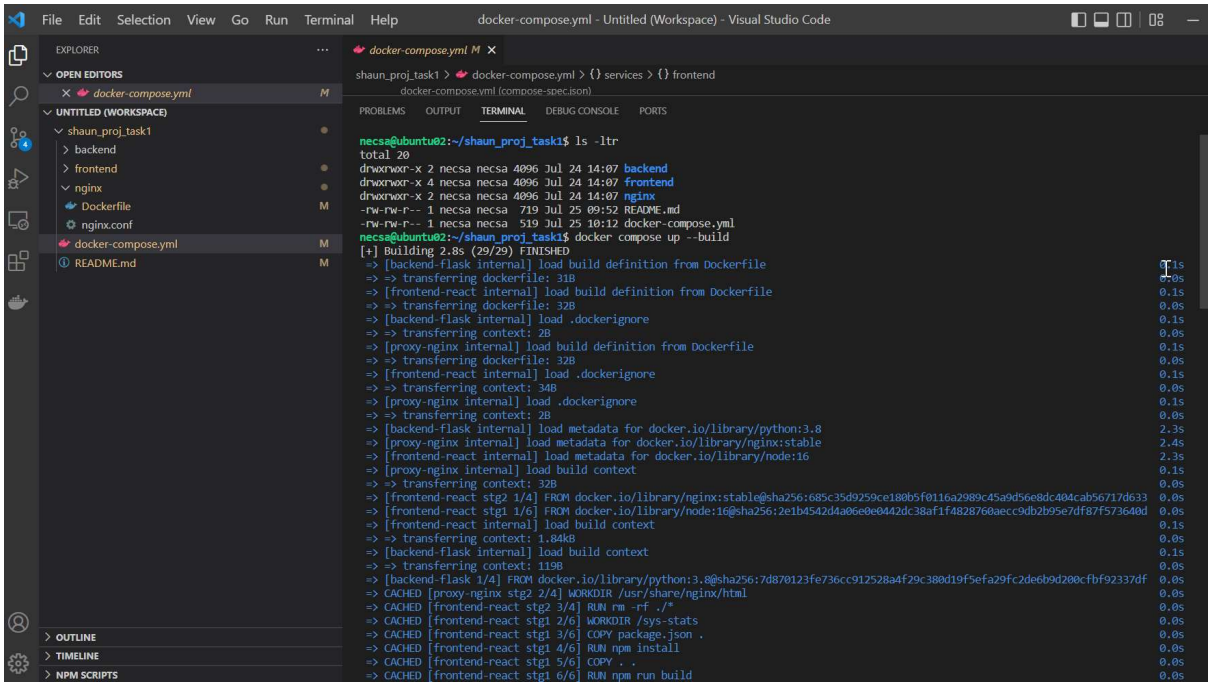


4. Deployment

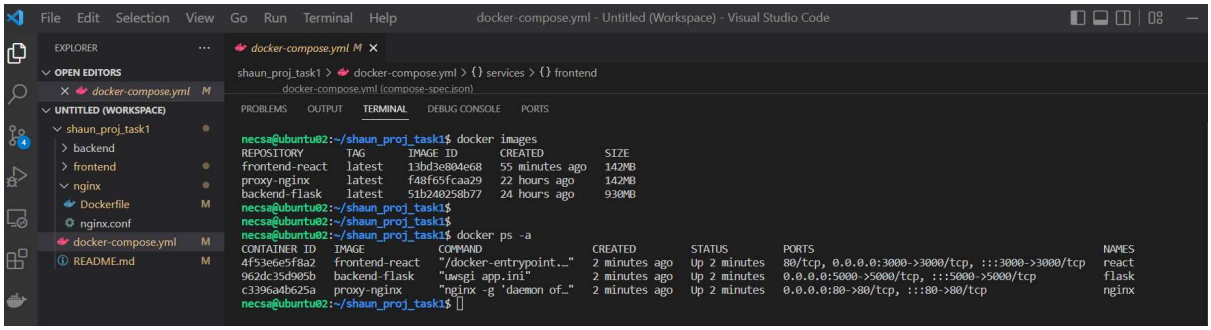
4a. Prepare docker-compose.yml for the whole build.



4b. Run deployment using docker compose up –build command.



4c. Verify resources created.

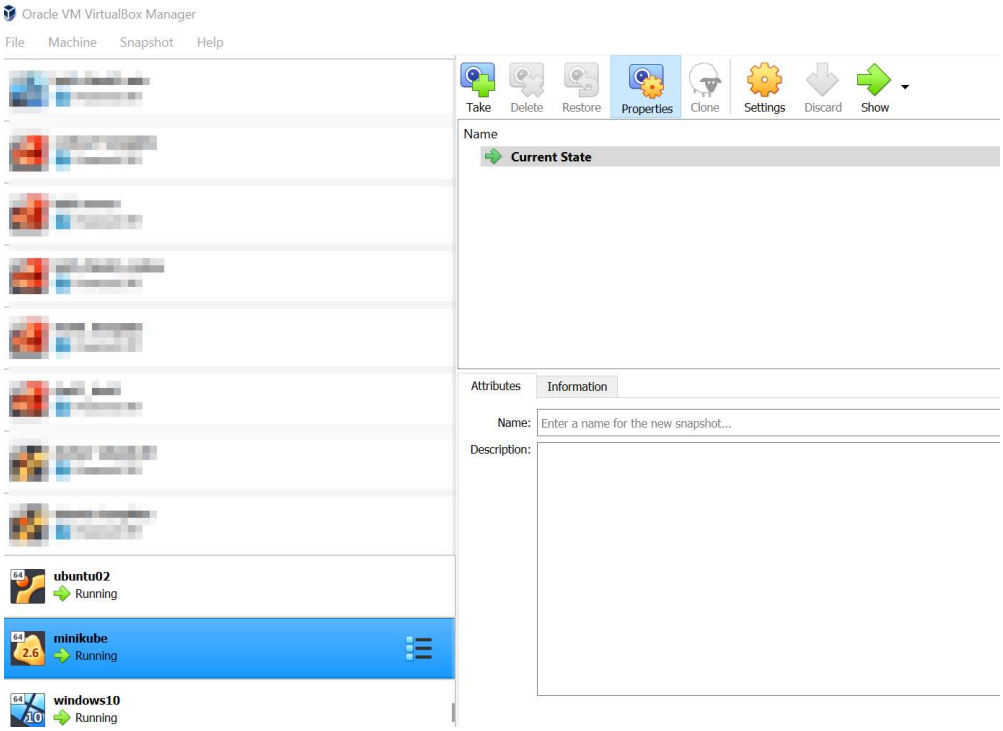


5. Testing

5a. Environment:

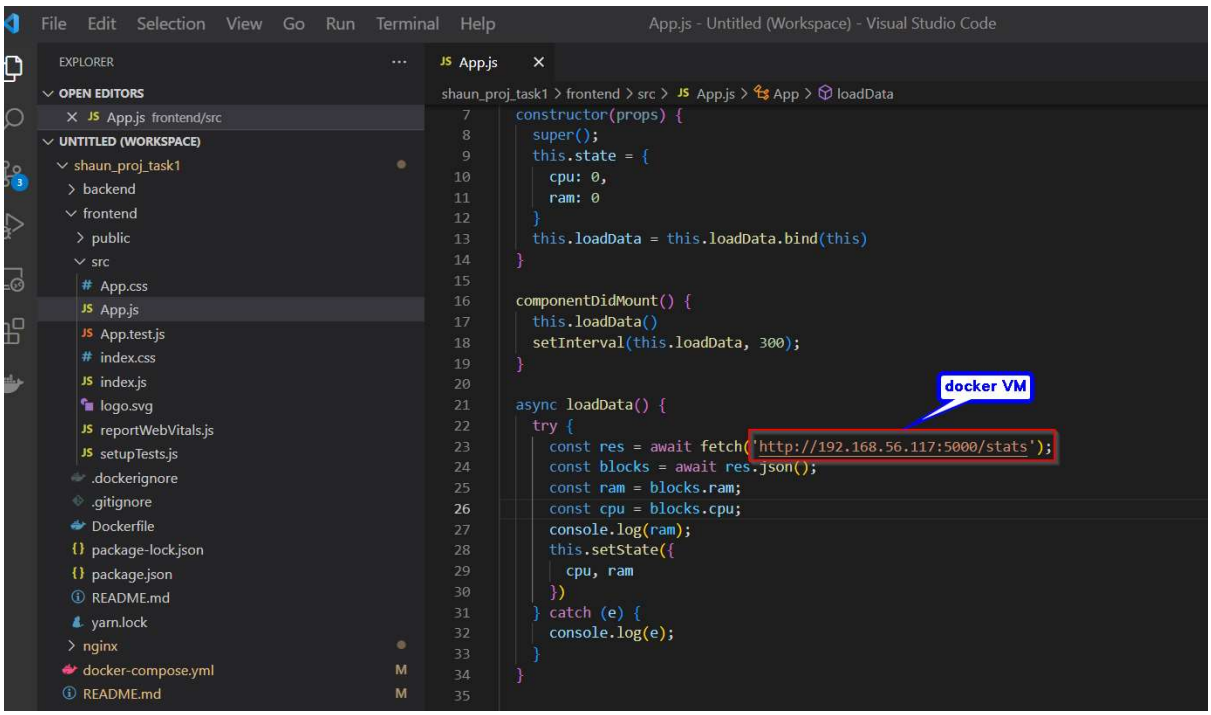
Ubunt02 VM (192.168.56.117) -> VM machiine where the dockers are being run and where the local dockers images are located.

Window10 VM (192.168.56.118) -> this is where to test the application is being tested via browser



For testing purposes, I have modified the src code to fetch the data from the docker VM itself (ubuntu02), where it will be reachable by windows VM via browser.

(note: unable to run docker desktop on my windows due to hardware settings limitation.



5b. Use Windows VM to test the application output via browser.