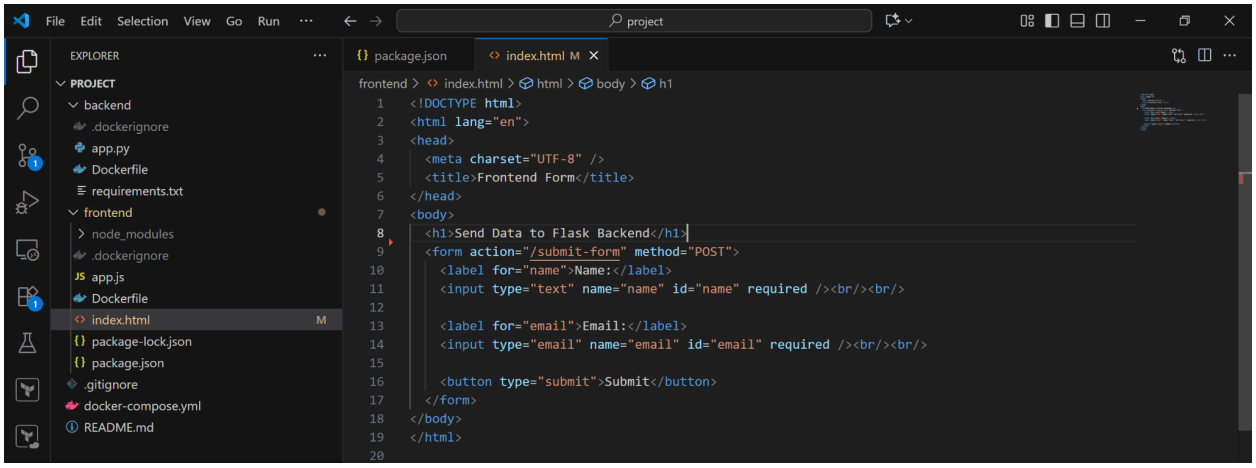
1. **Frontend (Node.js with Express)**:

- Create a frontend using Express and Node.js.
- Include a form similar to the one from the Flask Assignment 2.
- Configure the form to send a request to the Flask backend.
- **Backend (Flask)**:
- Use the Flask backend to handle the form submission and process the data.
- **Folder Structure**:
- Organize the project with separate folders for the frontend and backend.
- **Docker Configuration**:
- Create a `Dockerfile` for both the frontend and backend.
- Write a `.yaml` file (Docker Compose) to connect both services in the same network.
- Upload both images to docker hub and push your whole code to github and add the node_modules and other non required files(.vscode) in .gitignore

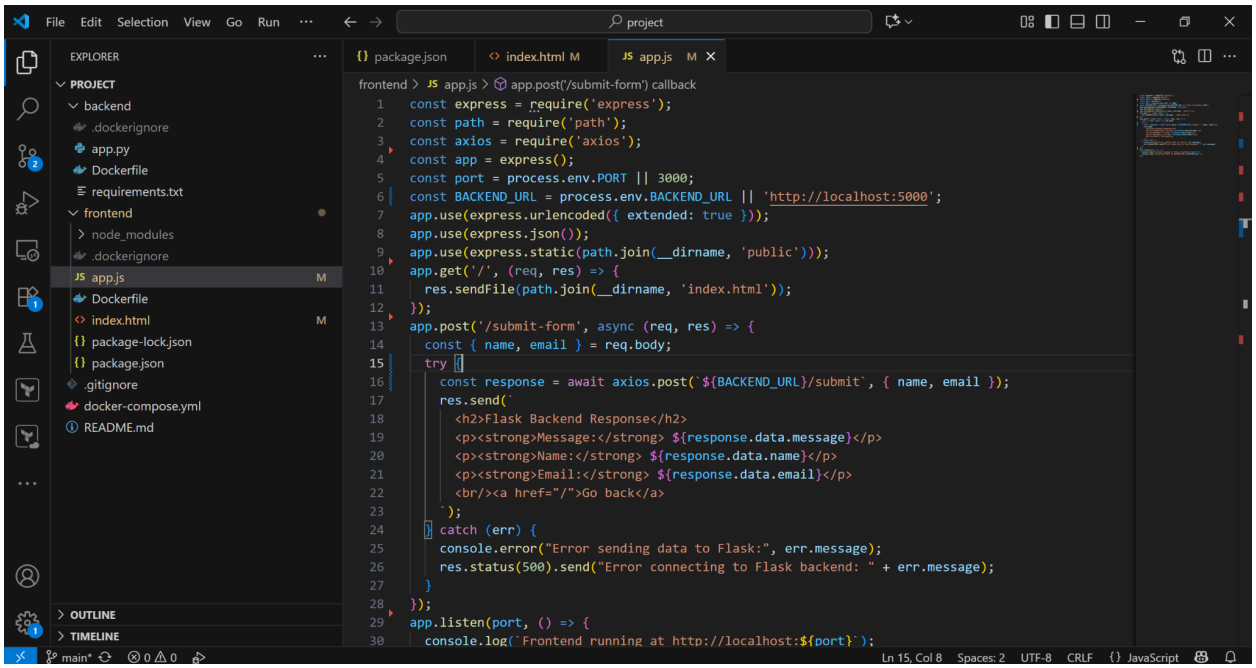
Frontend (Node.js with Express):

Create a frontend using Express and Node.js.

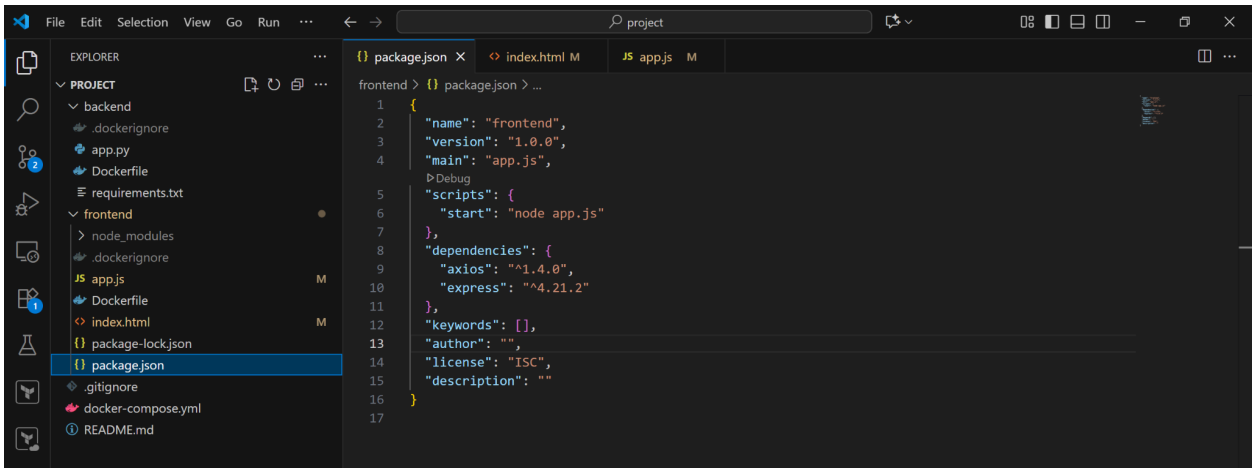
index.html(form)



Express app (app.js)

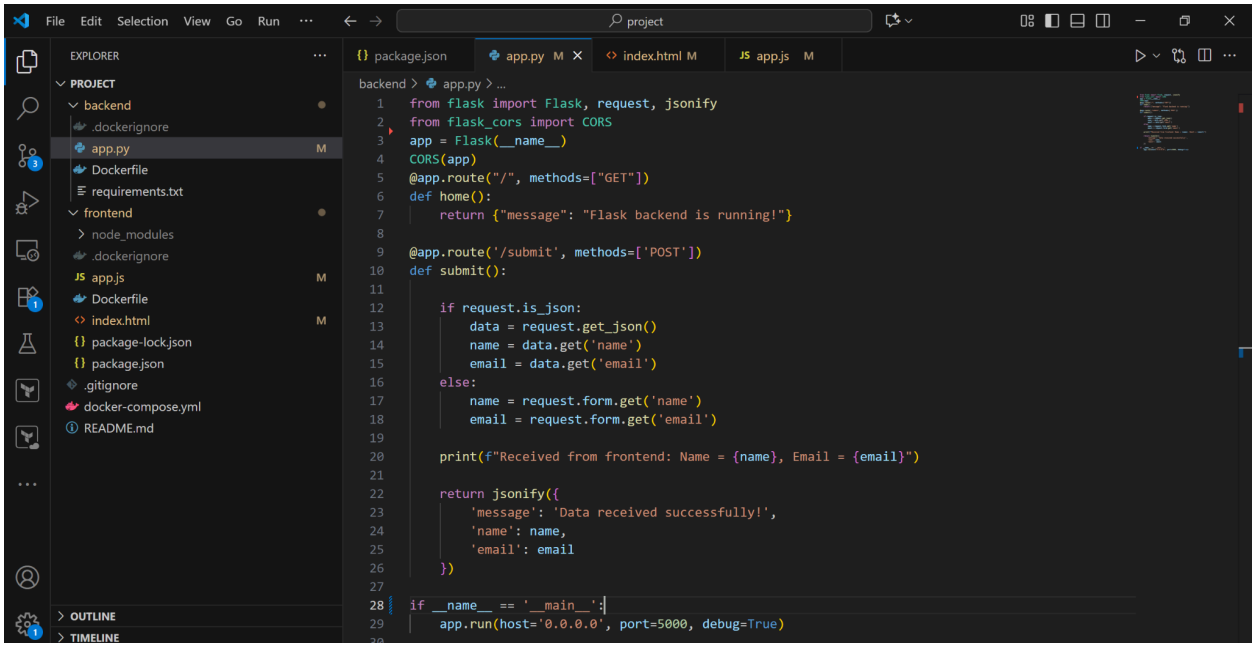


Package.json

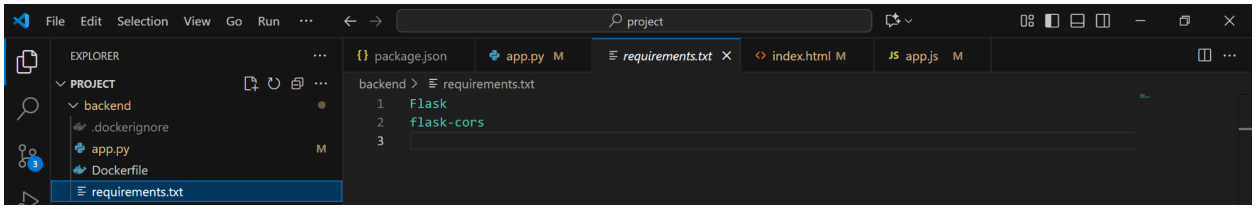


Backend (Flask):

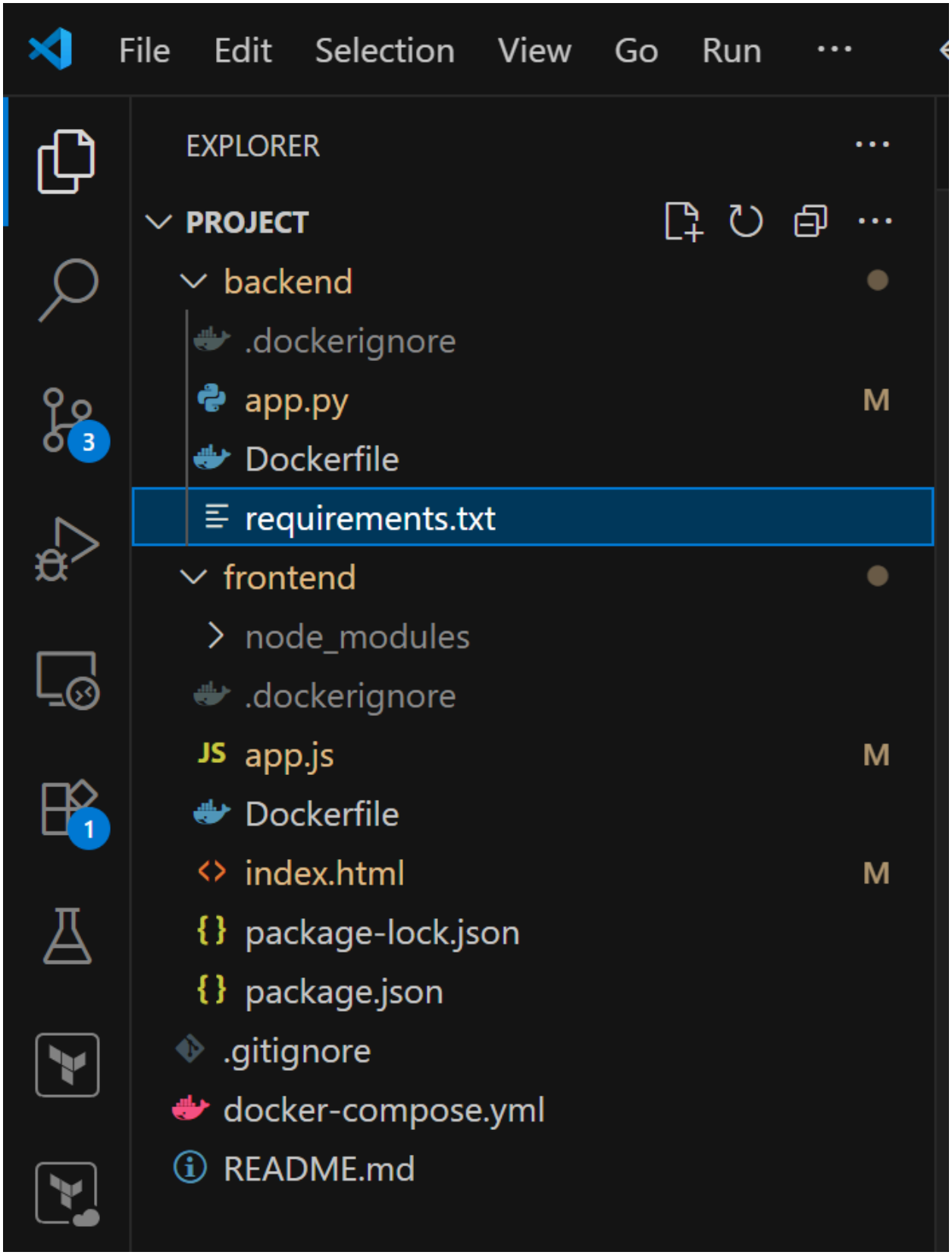
app.py



Requirements.txt



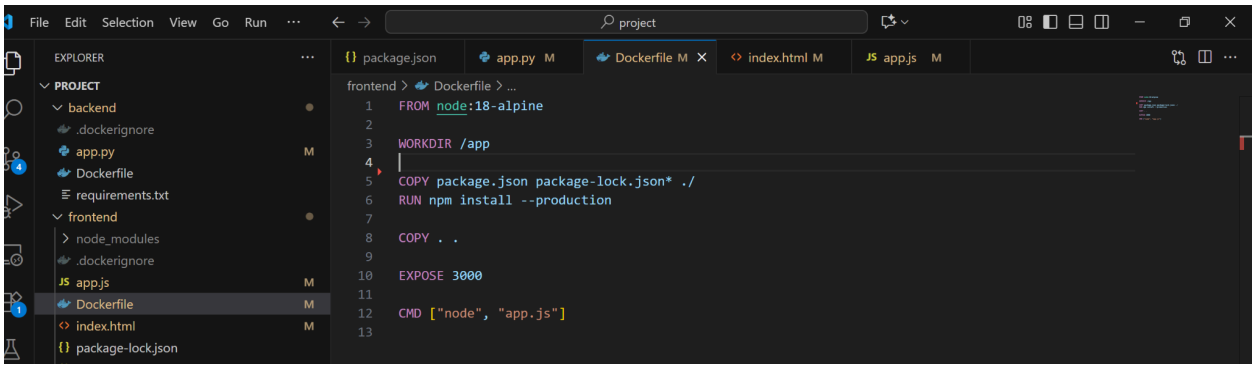
Folder Structure:



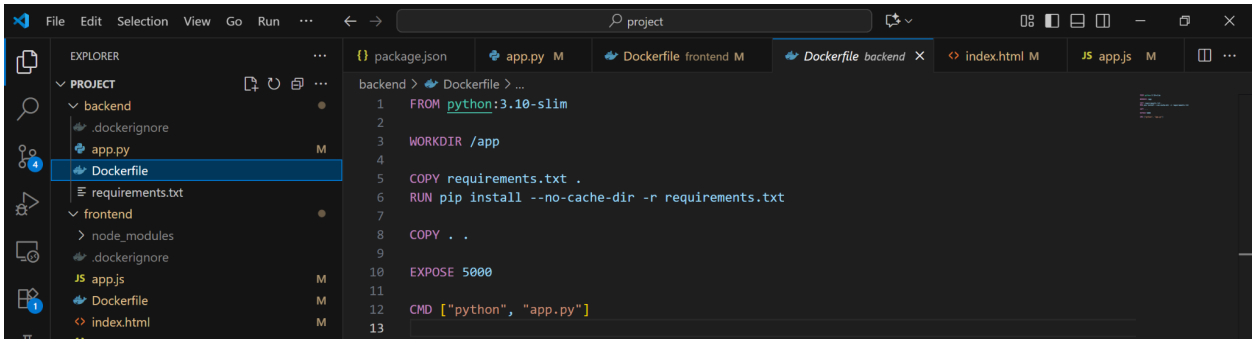
Docker Configuration:

Dockerfiles

frontend/Dockerfile

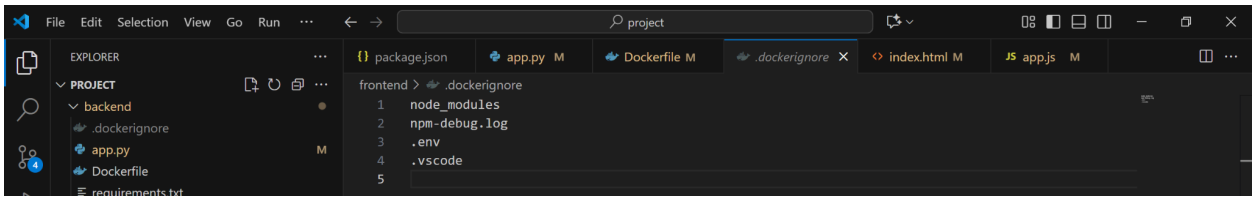


backend/Dockerfile

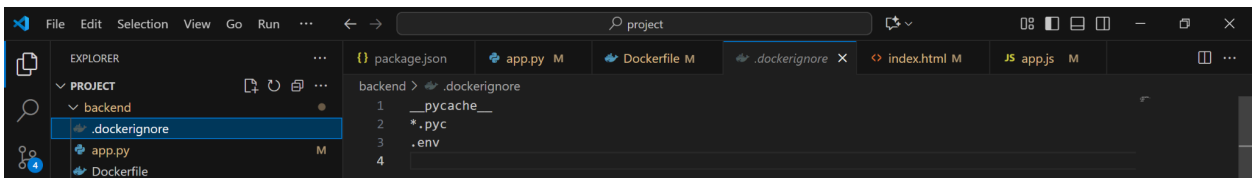


.dockerignore

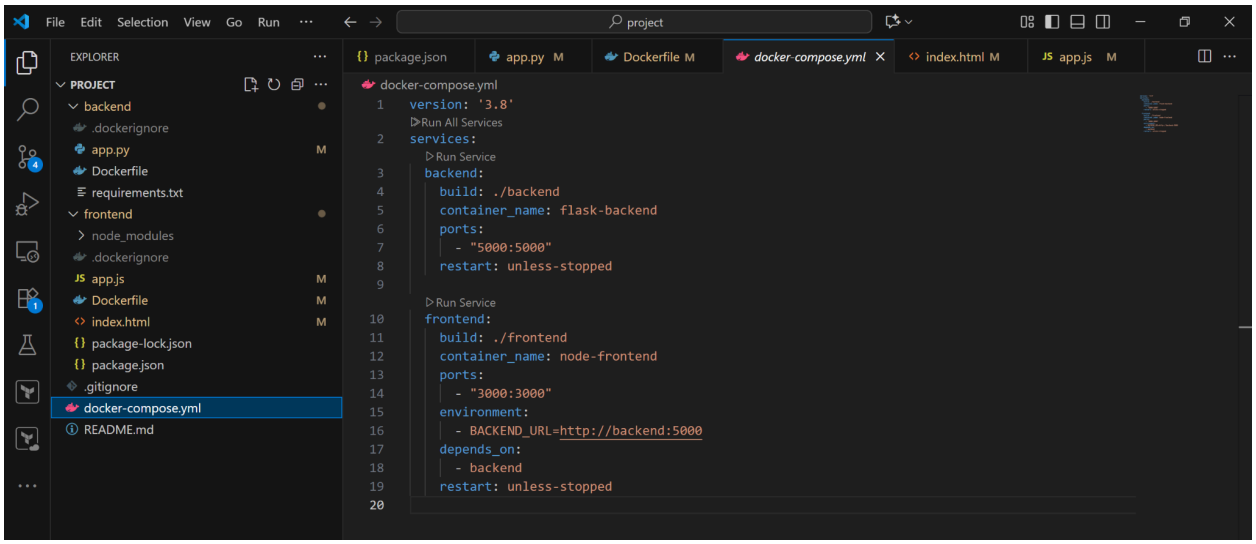
frontend/.dockerignore



backend/.dockerignore



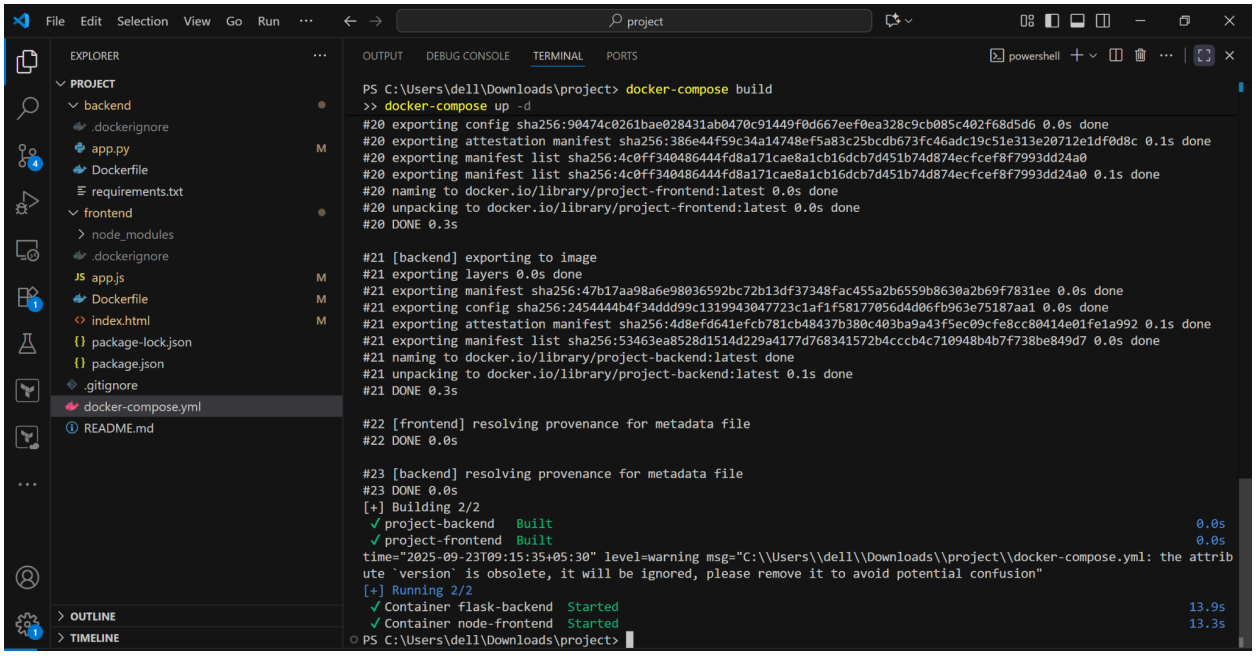
Docker-compose.yml



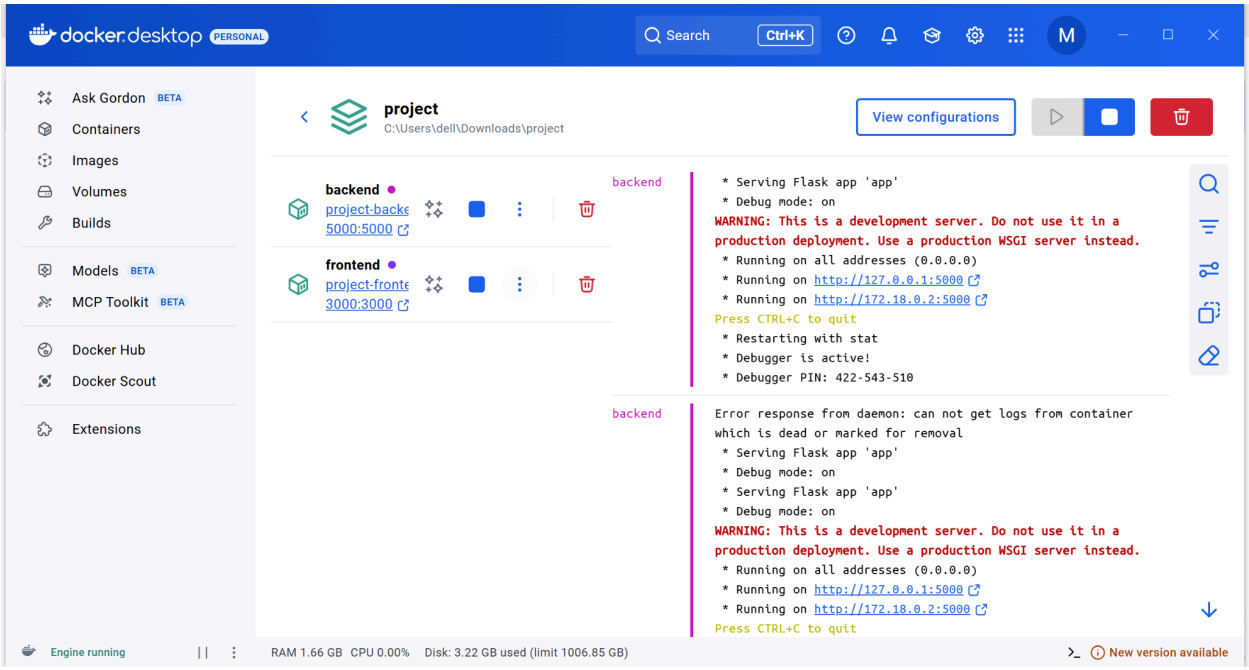
Run locally with Docker Compose

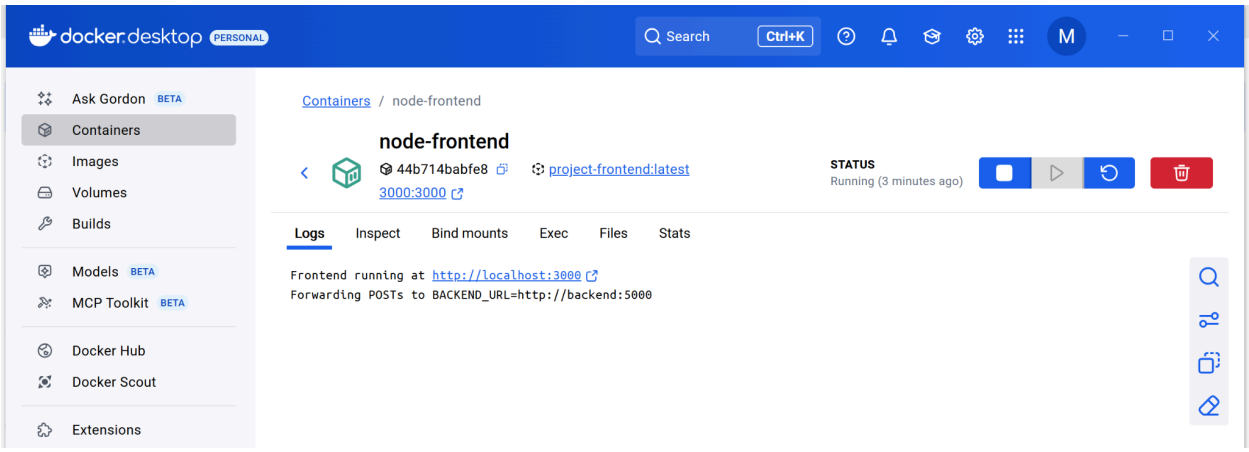
docker-compose build

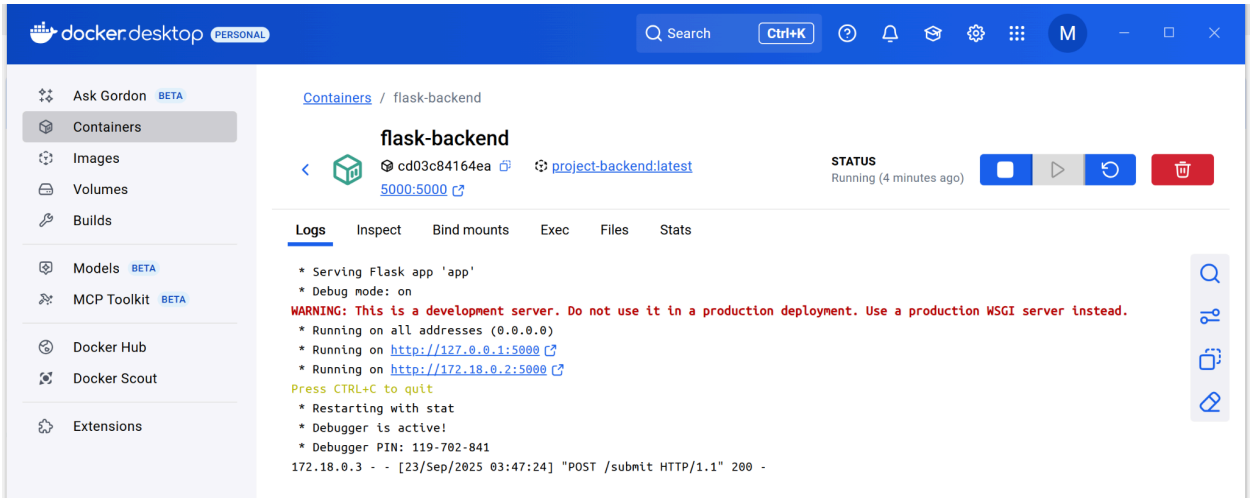
docker-compose up -d



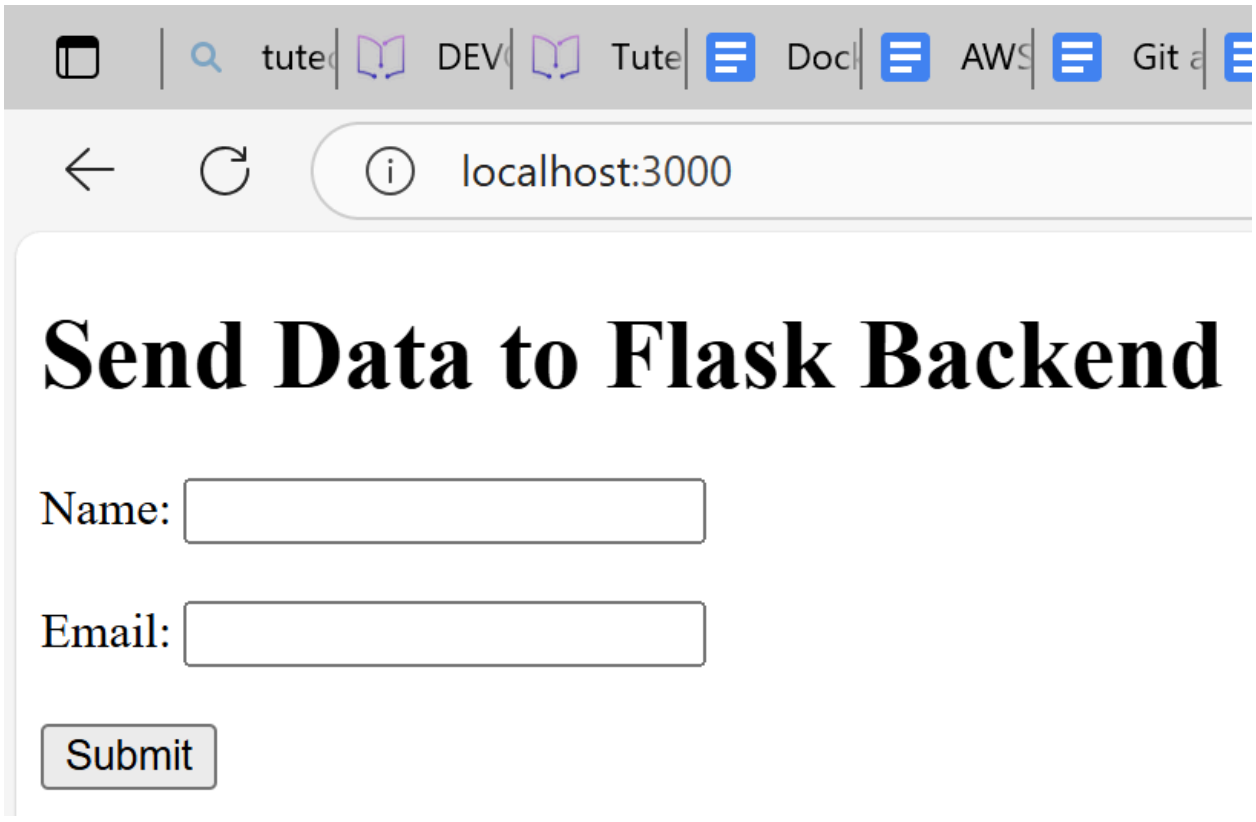
Seeing the result in docker desktop



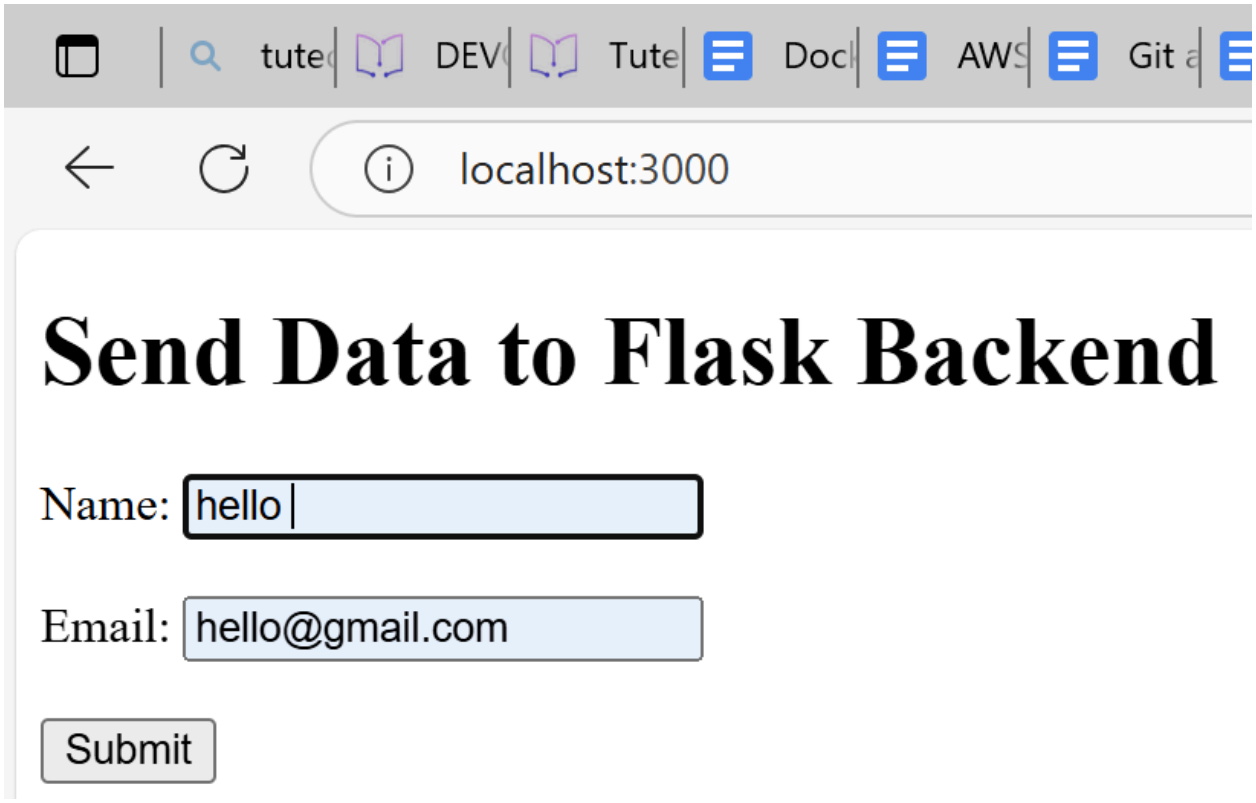




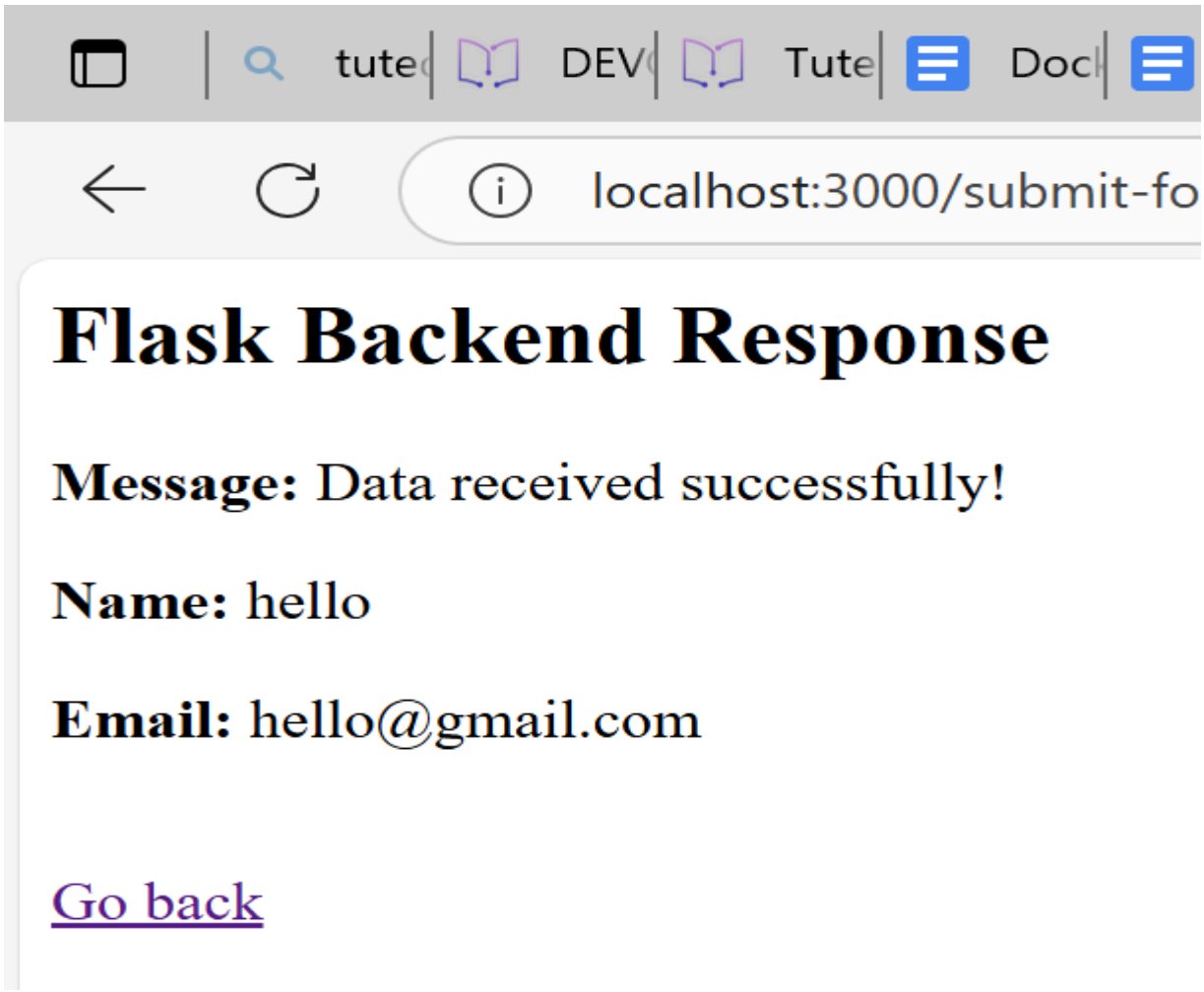
When go to the localhost:3000 this is showing



After filling the data in it

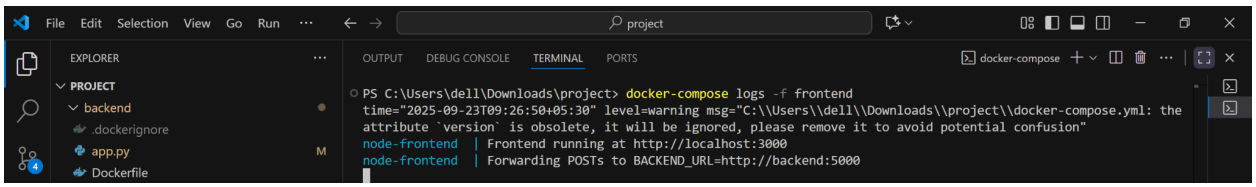


The Result

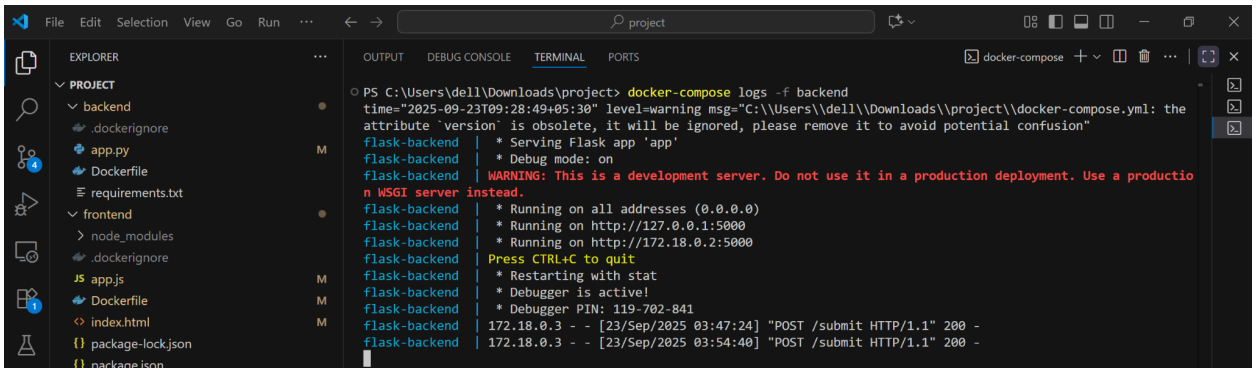


Logs:

docker-compose logs -f frontend

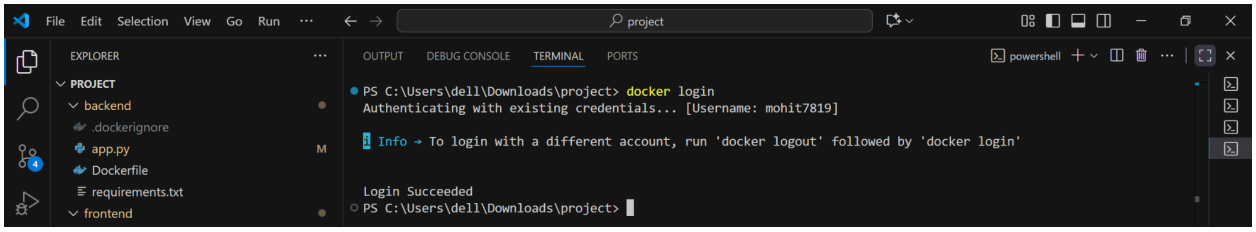


docker-compose logs -f backend

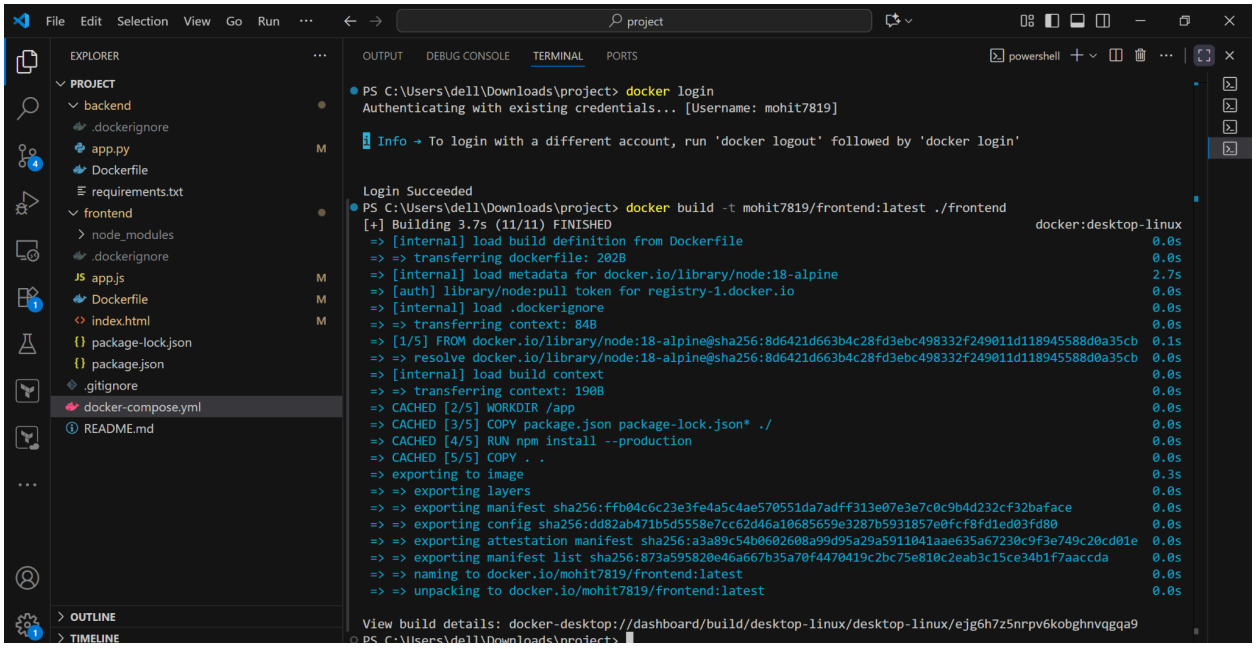


Push Docker images to Docker Hub

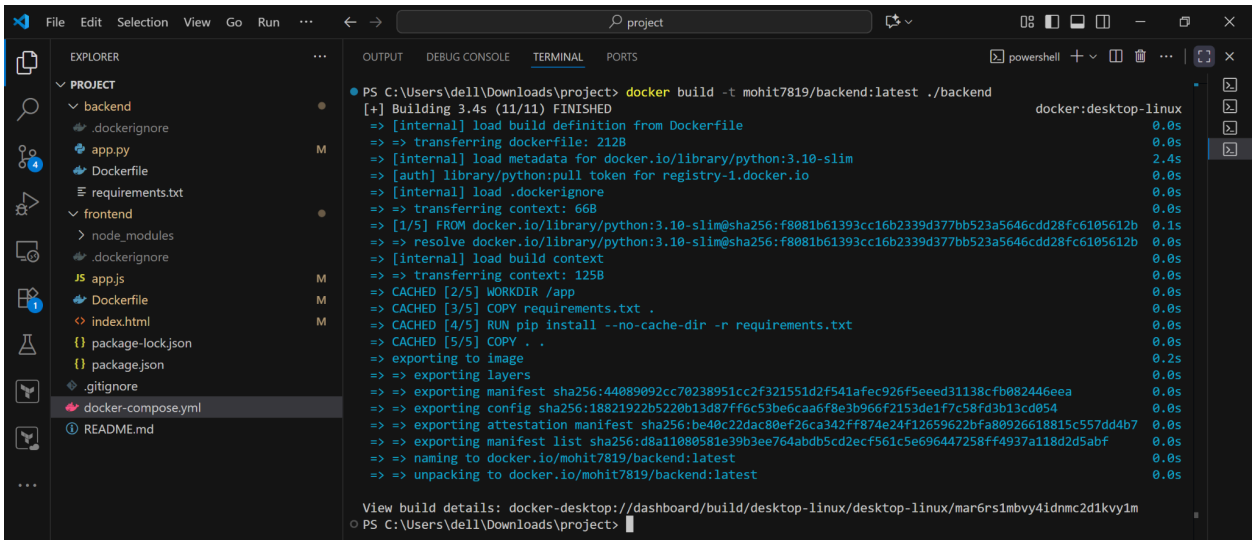
login to docker



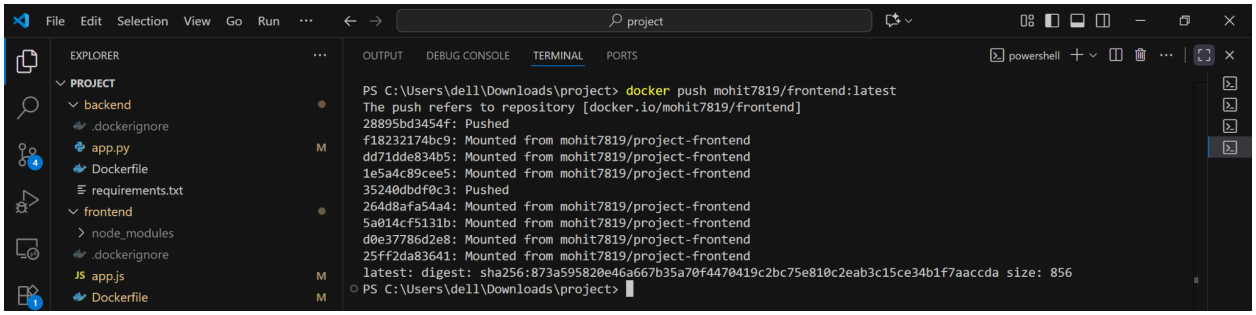
docker build -t <dockerhub-username>/frontend:latest ./frontend (in my case mohit7819)



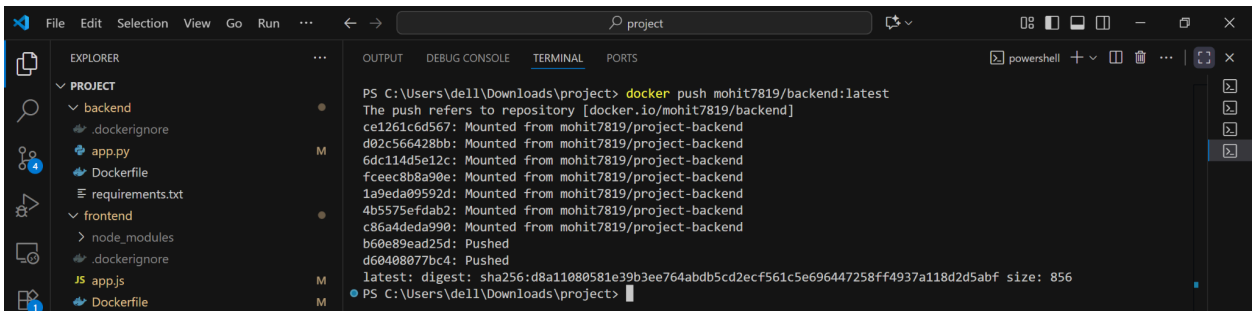
docker build -t <dockerhub-username>/backend:latest ./backend (in my case mohit7819)



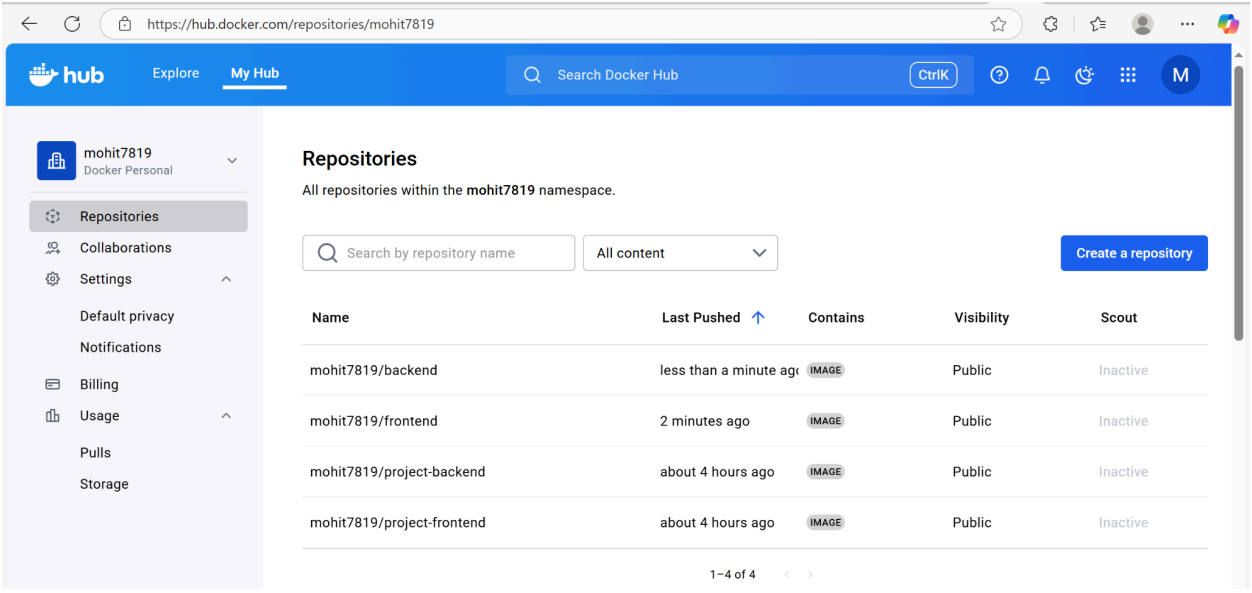
docker push <dockerhub-username>/frontend:latest (in my case mohit7819)



docker push <dockerhub-username>/backend:latest (in my case mohit7819)

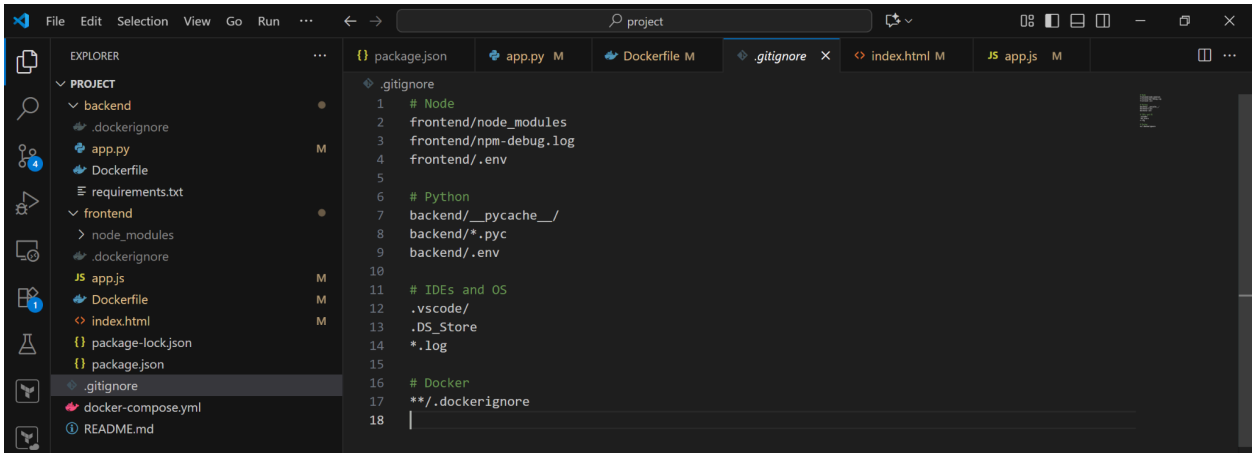


In Docker hub we see the repositiries



Push to GitHub

.gitingnore



Git commands

git init

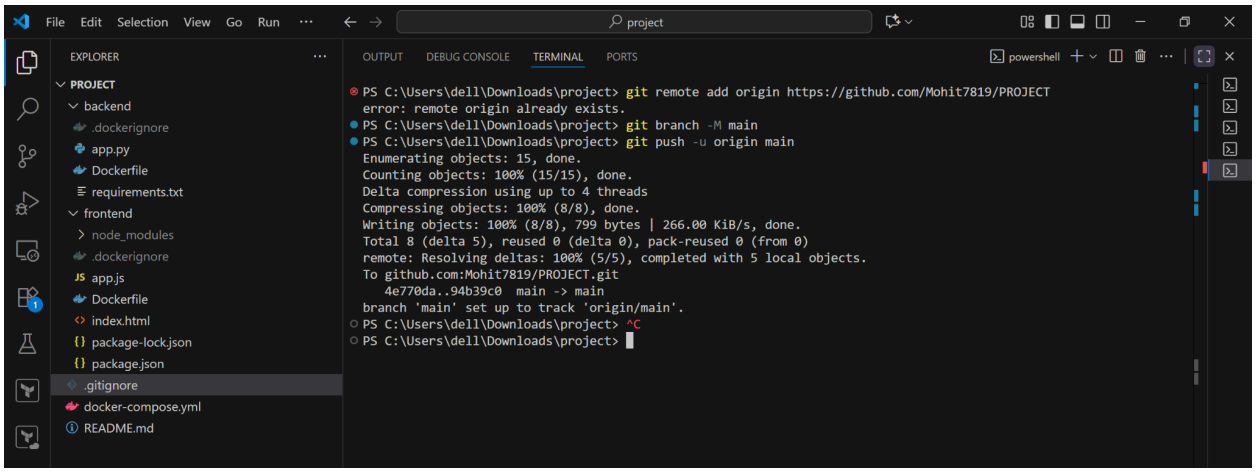
git add .

git commit -m "Initial commit: frontend + backend + docker setup"

git remote add origin https://github.com/Mohit7819/PROJECT

git branch -M main

git push -u origin main



Open and see the repository in github.com