

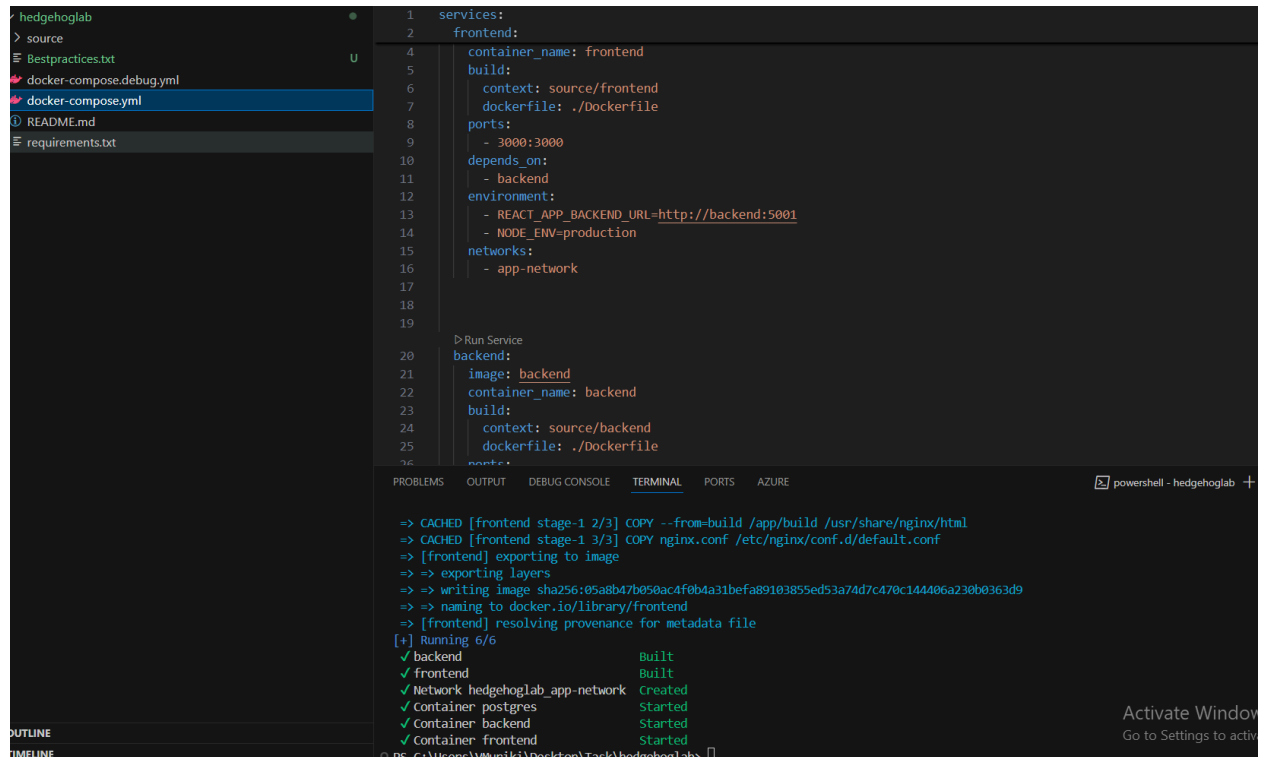
I have written basic 3 tier application for demo

Frontend: React application serving the user interface

Backend: Python API handling business logic and data processing

Database: PostgreSQL for persistent data storage

Docker-compose up --build -d



The screenshot shows a Visual Studio Code editor with a file explorer on the left containing files like `Bestpractices.txt`, `docker-compose.debug.yml`, `docker-compose.yml`, `README.md`, and `requirements.txt`. The main editor displays the `docker-compose.yml` file with the following content:

```
1 services:
2   frontend:
3     container_name: frontend
4     build:
5       context: source/frontend
6       dockerfile: ./Dockerfile
7     ports:
8       - 3000:3000
9     depends_on:
10      - backend
11     environment:
12       - REACT_APP_BACKEND_URL=http://backend:5001
13       - NODE_ENV=production
14     networks:
15       - app-network
16
17
18
19
20 > Run Service
21 backend:
22   image: backend
23   container_name: backend
24   build:
25     context: source/backend
26     dockerfile: ./Dockerfile
27   ports:
28     - 5000:5000
29   networks:
30     - app-network
```

The terminal at the bottom shows the output of the `docker-compose up --build -d` command:

```
=> CACHED [frontend stage-1 2/3] COPY --from=build /app/build /usr/share/nginx/html
=> CACHED [frontend stage-1 3/3] COPY nginx.conf /etc/nginx/conf.d/default.conf
=> [frontend] exporting to image
=> => exporting layers
=> => writing image sha256:05a8b47b050ac4f0b4a31befa89103855ed53a74d7c470c144406a230b0363d9
=> => naming to docker.io/library/frontend
=> [frontend] resolving provenance for metadata file
[+] Running 6/6
 ✓ backend          Built
 ✓ frontend         Built
 ✓ Network hedgehoglab_app-network Created
 ✓ Container postgres Started
 ✓ Container backend Started
 ✓ Container frontend Started
```

The terminal window title is "powershell - hedgehoglab".

Output:

Three-Tier Application Demo

React Frontend + Flask API + PostgreSQL Database

Add a new item

Add Item

Items List

Sample Item 1

Delete

Sample Item 2

Delete

Sample Item 3

Delete