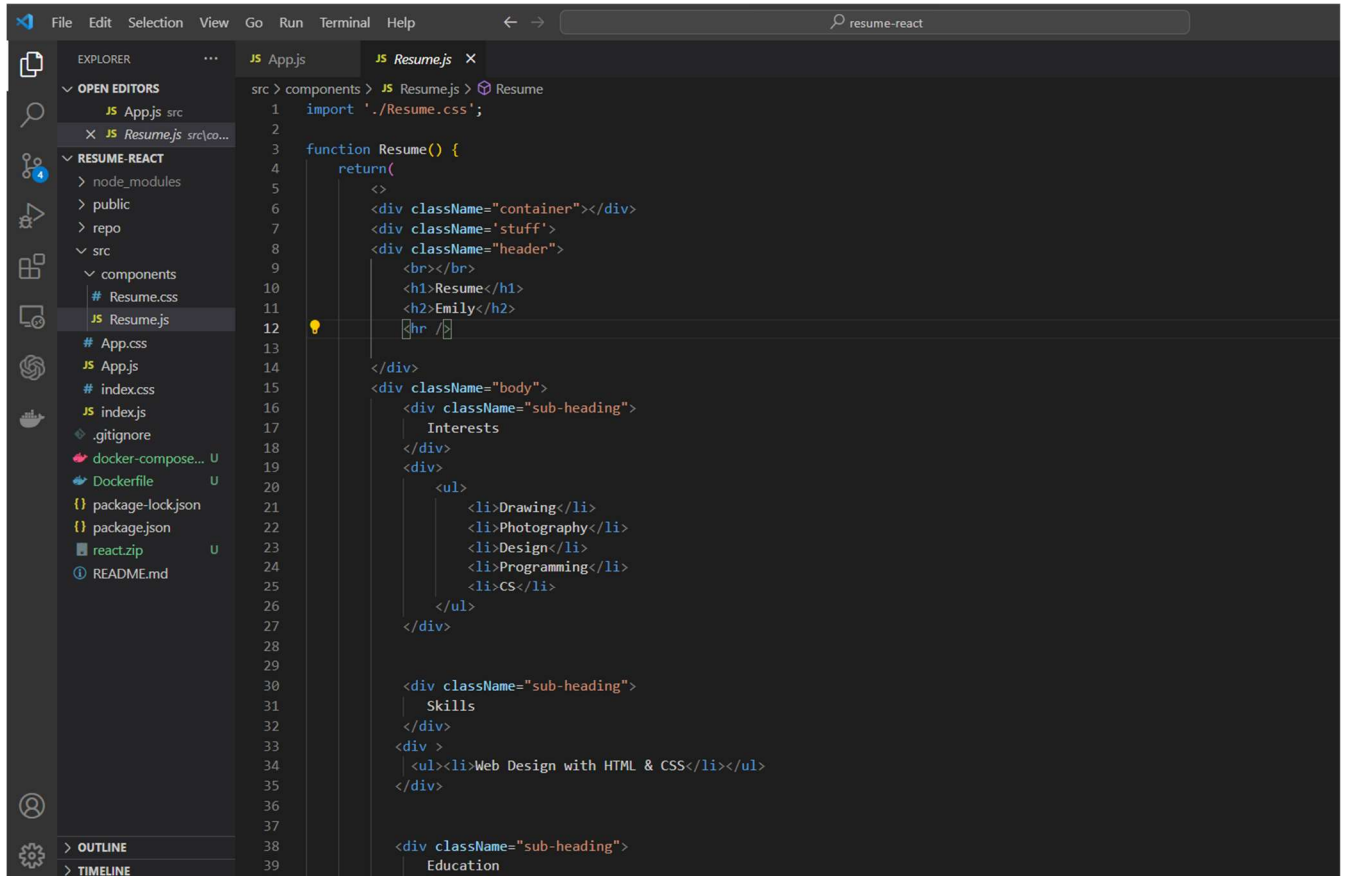


Docker Compose Project

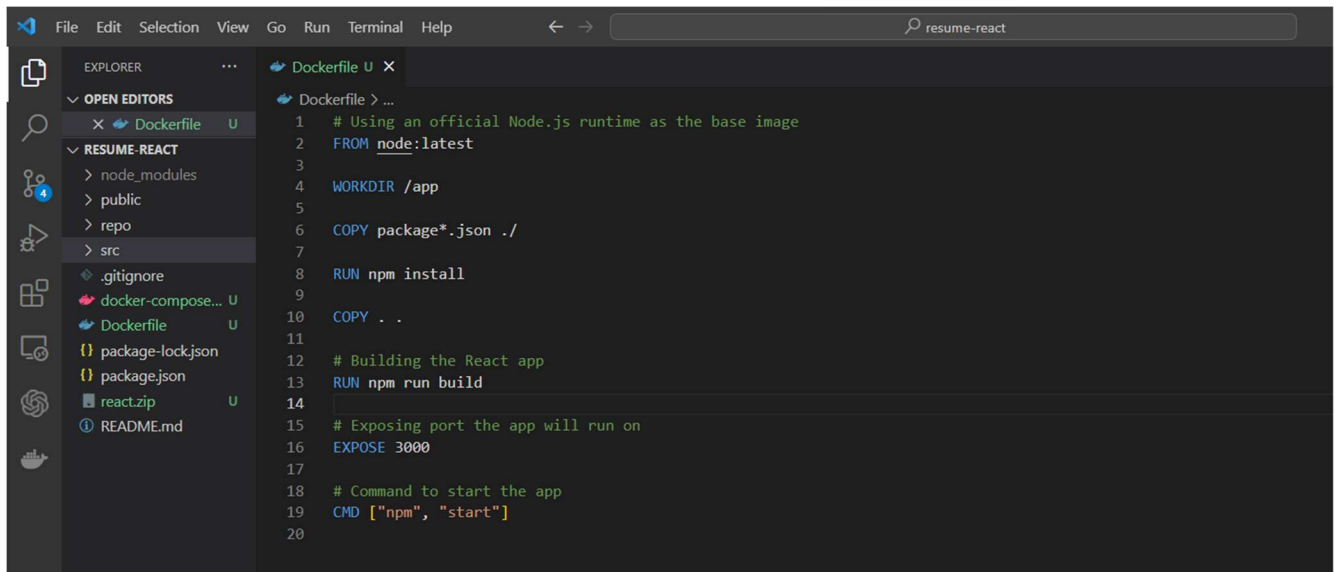
Code for a React Project:



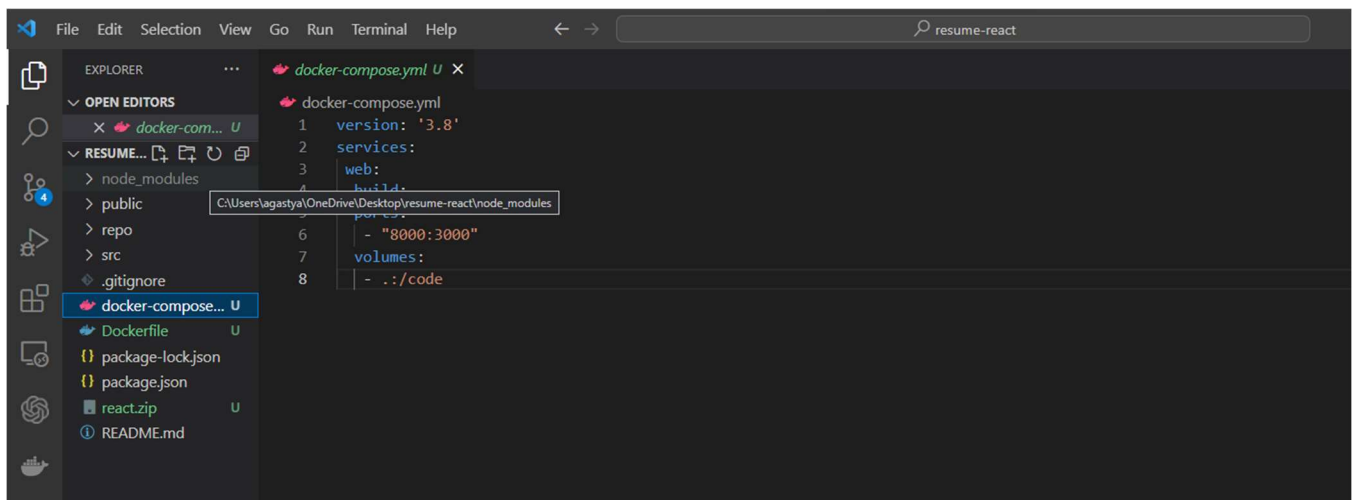
The screenshot shows the Visual Studio Code interface with a React project. The Explorer sidebar on the left displays the project structure, including files like `App.js`, `Resume.js`, `App.css`, `index.css`, `index.js`, `.gitignore`, `docker-compose...`, `Dockerfile`, `package-lock.json`, `package.json`, `react.zip`, and `README.md`. The main editor area shows the `Resume.js` file with the following code:

```
1 import './Resume.css';
2
3 function Resume() {
4   return(
5     <>
6     <div className="container"></div>
7     <div className="stuff">
8     <div className="header">
9       <br></br>
10      <h1>Resume</h1>
11      <h2>Emily</h2>
12      <hr />
13    </div>
14    <div className="body">
15      <div className="sub-heading">
16        Interests
17      </div>
18      <div>
19        <ul>
20          <li>Drawing</li>
21          <li>Photography</li>
22          <li>Design</li>
23          <li>Programming</li>
24          <li>CS</li>
25        </ul>
26      </div>
27    </div>
28
29    <div className="sub-heading">
30      Skills
31    </div>
32    <div>
33      <ul><li>Web Design with HTML & CSS</li></ul>
34    </div>
35
36    <div className="sub-heading">
37      Education
38    </div>
39  )
40 }
```

Dockerfile for this Project: This Dockerfile will build the image for the react project that will be used by Docker Compose to deploy containers.



Yaml File for Compose: This compose.yaml file uses the image built by the Dockerfile above to deploy the container. Volume mount is specified in the code along with exposing the port number 8000.



Before Starting Compose:

No previous Containers running:

```
C:\Windows\System32\cmd.e X + v
Microsoft Windows [Version 10.0.22621.2428]
(c) Microsoft Corporation. All rights reserved.

C:\Users\agastya\OneDrive\Desktop\resume-react>docker container ls
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
C:\Users\agastya\OneDrive\Desktop\resume-react>
```

Volumes Before Starting compose:

```
C:\Users\agastya\OneDrive\Desktop\resume-react>docker volume ls
DRIVER      VOLUME NAME
local       25ddf6bcb77a3cd3f7796f7879a974fdaba7bc76d849c451aa59ab04b00d464f
local       myvol
local       myvol2
```

Starting Docker Compose: “*docker compose up -d*” (-d is to start it in detached mode, so I can check for changes made by compose.

- Compose building from Dockerfile and layers are exported:

```
C:\Users\agastya\OneDrive\Desktop\resume-react>docker compose up -d
[+] Running 2/2
 - Network resume-react_default Created                                0.2s
 - Container resume-react-web-1 Started                               2.6s

C:\Users\agastya\OneDrive\Desktop\resume-react>docker compose down
[+] Running 2/2
 - Container resume-react-web-1 Removed                               10.9s
 - Network resume-react_default Removed                                0.3s

C:\Users\agastya\OneDrive\Desktop\resume-react>docker compose up -d
[+] Building 103.5s (10/11)
=> [internal] load build definition from Dockerfile                  0.1s
=> => transferring dockerfile: 335B                                  0.1s
=> [internal] load .dockerignore                                       0.1s
=> => transferring context: 2B                                         0.0s
=> [internal] load metadata for docker.io/library/node:latest        0.0s
=> [internal] load build context                                       32.4s
=> => transferring context: 3.25MB                                     31.8s
=> [1/6] FROM docker.io/library/node:latest                          0.0s
=> CACHED [2/6] WORKDIR /app                                           0.0s
=> CACHED [3/6] COPY package*.json ./                                  0.0s
=> CACHED [4/6] RUN npm install                                         0.0s
=> [5/6] COPY . .                                                     40.6s
=> [6/6] RUN npm run build                                             23.5s
=> exporting to image                                                  6.5s
=> => exporting layers                                                 6.5s
```

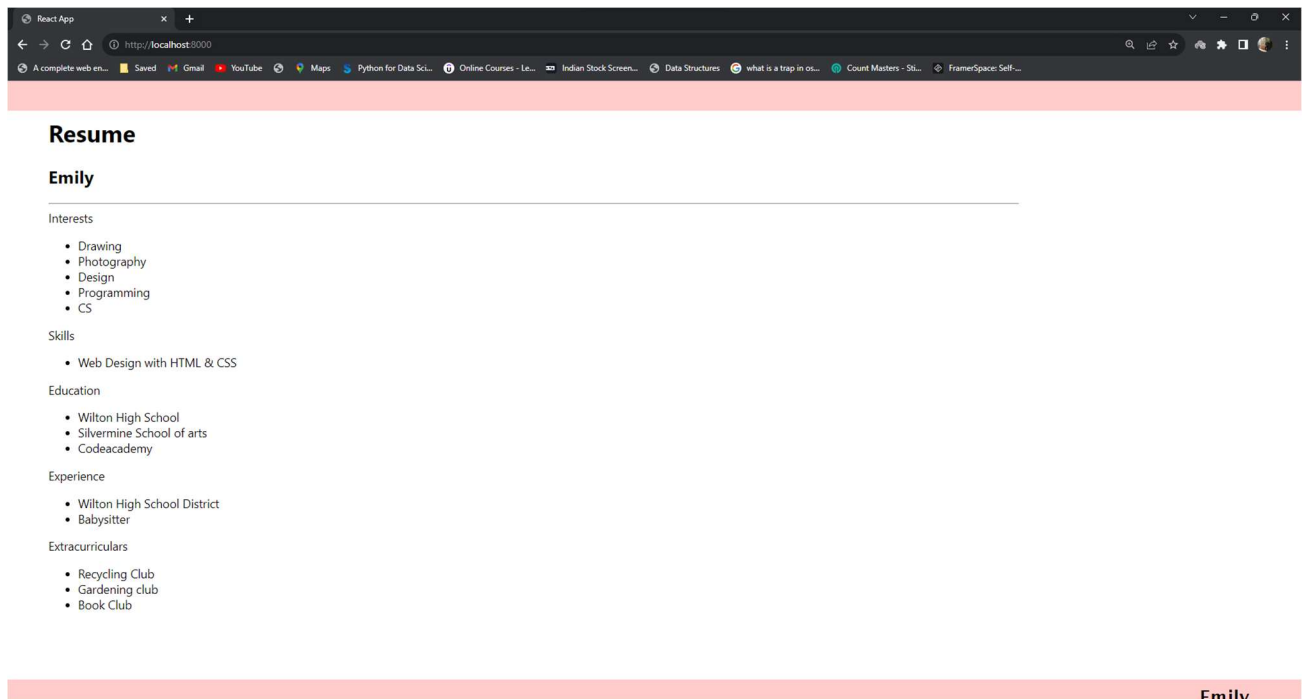
- Network Layer is created by docker compose and containers are started:

```
=> exporting to image 14.8s
=> => exporting layers 14.7s
=> => writing image sha256:76a0d51c02e64e9a375619e32ffce575a0455c390e416b08091ef800b3336047 0.0s
=> => naming to docker.io/library/resume-react-webapp1 0.0s
[+] Running 2/2
- Network resume-react_default Created 0.2s
- Container resume-react-webapp1-1 Started 2.9s

C:\Users\agastya\OneDrive\Desktop\resume-react>docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
eb2744864efb        bridge              bridge              local
d0bf6d2be728        host                host                local
d89a473dedb4        none                null                local
cd0c162697a7        resume-react_default bridge              local

C:\Users\agastya\OneDrive\Desktop\resume-react>docker container ls
CONTAINER ID        IMAGE               COMMAND              CREATED             STATUS              PORTS              NAMES
426ac78c4b92       resume-react-webapp1 "docker-entrypoint.s..." 4 minutes ago       Up 3 minutes       0.0.0.0:8000->3000/tcp resume-react-webapp1-1
```

- Checking if the react project is accessible on port 8000 (localhost:8000):



Project is accessible on port 8000.