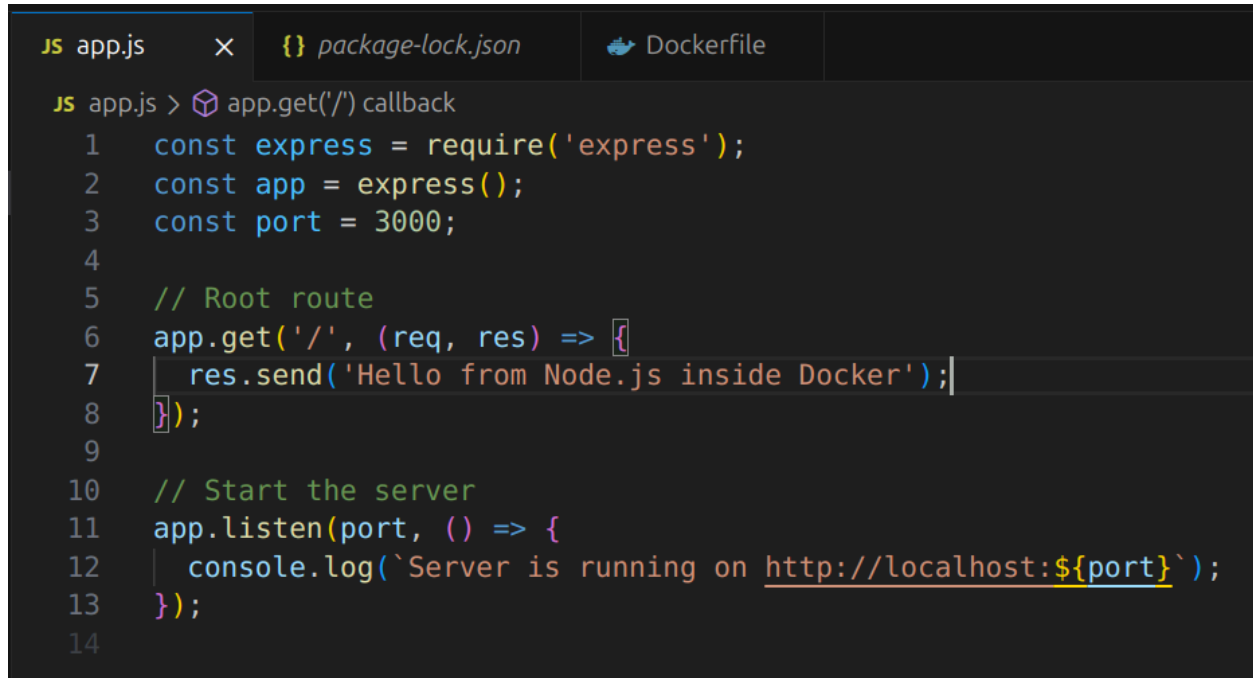


Program 3

Code a Dockerfile to run Node.js application

Step 1 : Create folder "lab3" , navigate to the folder in terminal and run "npm init -y" and "install express" commands.

Step 2 : Create [app.js](#) file.

A screenshot of a code editor with a dark theme. The editor has three tabs at the top: 'app.js' (selected), 'package-lock.json', and 'Dockerfile'. The 'app.js' tab shows a JavaScript file with the following content:

```
JS app.js > app.get('/') callback
1  const express = require('express');
2  const app = express();
3  const port = 3000;
4
5  // Root route
6  app.get('/', (req, res) => {
7    res.send('Hello from Node.js inside Docker');
8  });
9
10 // Start the server
11 app.listen(port, () => {
12   console.log(`Server is running on http://localhost:${port}`);
13 });
14
```

Step 3 : Create Dockerfile

```
JS app.js    {} package-lock.json    Dockerfile X
Dockerfile
1
2 FROM node:18
3
4 WORKDIR /app
5
6 COPY package*.json ./
7
8 RUN npm install
9
10 COPY . .
11
12 EXPOSE 3000
13
14 CMD ["node", "app.js"]
15
```

Step 4 : Build image

Docker build -t lab3image .

```
rv24mc094_sangeethan@sangeetha-n-ThinkPad-X1-Carbon-6th:~/Desktop/Devops_lab/lab3$ docker build -t lab3image .
[+] Building 11.5s (10/10) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 153B
=> [internal] load metadata for docker.io/library/node:18
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [1/5] FROM docker.io/library/node:18
=> [internal] load build context
=> => transferring context: 2.70MB
=> CACHED [2/5] WORKDIR /app
=> CACHED [3/5] COPY package*.json ./
=> [4/5] RUN npm install
=> [5/5] COPY . .
=> exporting to image
=> => exporting layers
=> => writing image sha256:7aeaf80cc70ac33d9213a2843f065f10e468f6d6e814e50de415196661c76afb
=> => naming to docker.io/library/lab3image
docker:default
0.1s
0.0s
0.0s
0.1s
0.0s
0.0s
0.5s
0.4s
0.0s
0.0s
8.0s
1.6s
0.7s
0.6s
0.0s
0.0s
```

Step 5 : Run Container

Docker run -p 3000:3000 lab3image

```
rv24mc094_sangeethan@sangeetha-n-ThinkPad-X1-Carbon-6th:~/Desktop/Devops_lab/lab3$ docker run -p 3000:3000 lab3image
Server is running on http://localhost:3000
```

Step 6 : Test the container

← → ↻ ⓘ localhost:3000

Hello from Node.js inside Docker