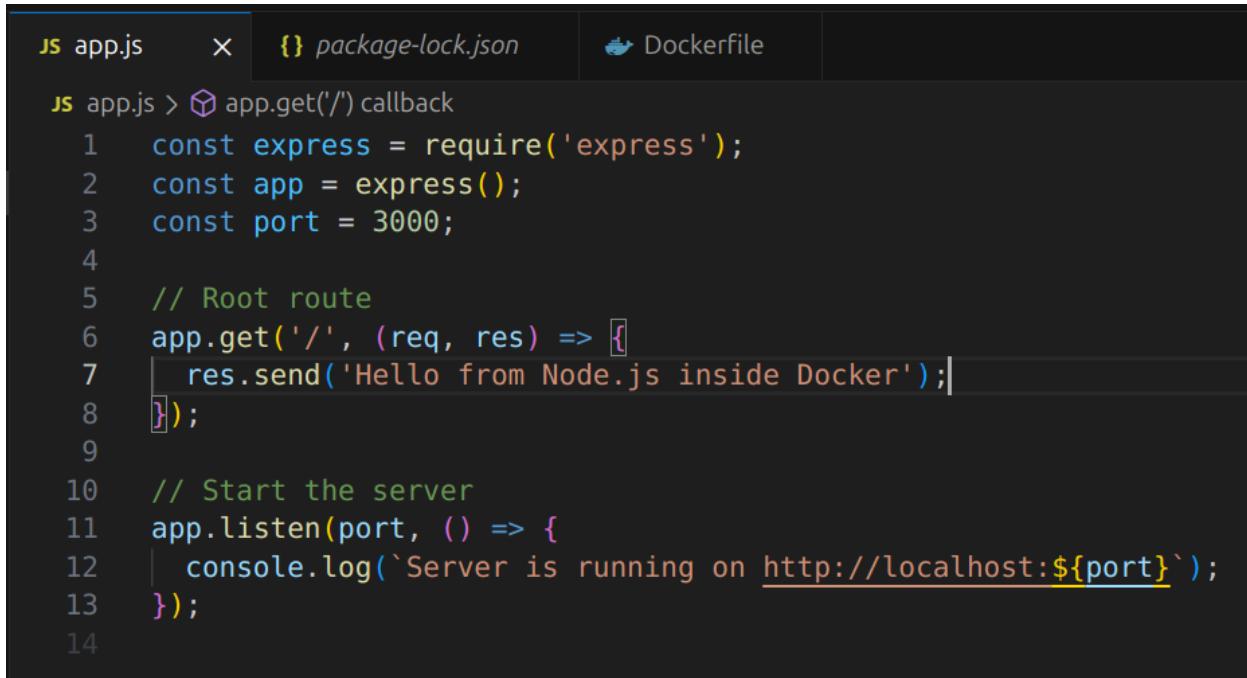


## Program 3

### 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.



```
JS app.js     X {} package-lock.json Dockerfile

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

The screenshot shows a code editor with three tabs open:

- app.js**: Contains a single line of code: `console.log("Hello World")`.
- package-lock.json**: An empty file.
- Dockerfile**: A file containing the following Docker build instructions:

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

## 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
```

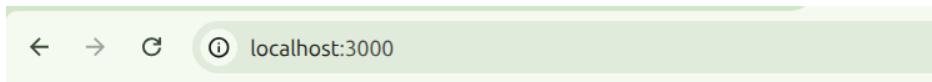
docker:default
0.1s
0.0s
0.0s
0.1s
0.0s
0.0s
0.5s
0.4s
0.0s
0.0s
8.0s
1.6s
0.7s
0.6s
0.0s
0.0s

## 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



Hello from Node.js inside Docker