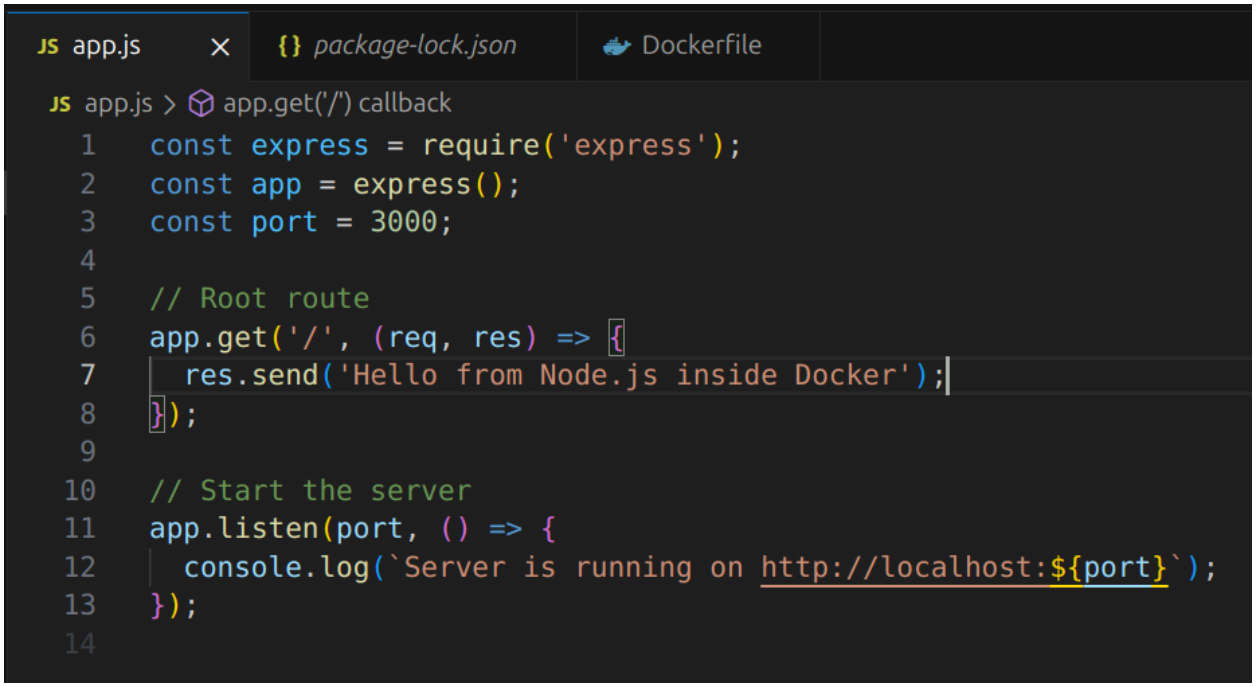
# Program 3
# Code a Dockerfile to run Node.js application

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.




Step 3 : Create Dockerfile

app.js | package-lock.json | Dockerfile

Dockerfile

```
FROM node:18

WORKDIR /app

COPY package*.json ./

RUN npm install

COPY . .

EXPOSE 3000

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                                                                    docker:default
 => [internal] load build definition from Dockerfile                                                            0.1s
 => => transferring dockerfile: 153B                                                                            0.0s
 => [internal] load metadata for docker.io/library/node:18                                                      0.0s
 => [internal] load .dockerignore                                                                               0.1s
 => => transferring context: 2B                                                                                 0.0s
 => [1/5] FROM docker.io/library/node:18                                                                        0.0s
 => [internal] load build context                                                                               0.5s
 => => transferring context: 2.70MB                                                                             0.4s
 => CACHED [2/5] WORKDIR /app                                                                                   0.0s
 => CACHED [3/5] COPY package*.json ./                                                                          0.0s
 => [4/5] RUN npm install                                                                                       8.0s
 => [5/5] COPY . .                                                                                              1.6s
 => exporting to image                                                                                          0.7s
 => => exporting layers                                                                                         0.6s
 => => writing image sha256:7aeaf80cc70ac33d9213a2843f065f10e468f6d6e814e50de415196661c76afb                    0.0s
 => => naming to docker.io/library/lab3image                                                                    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