

PROGRAM 2

Develop a Multistage Dockerfile for Container Orchestration

S1: Create a folder

mkdir Program2

S2: Install npm packages and node modules

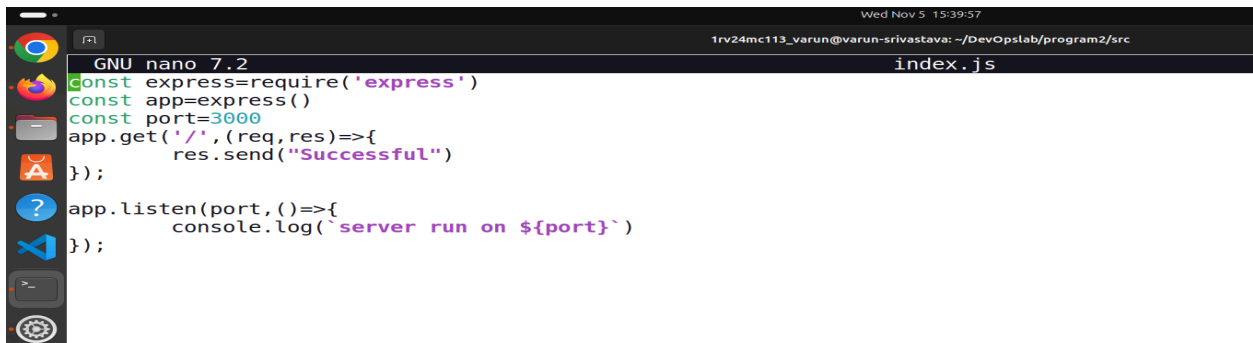
npm init -y

npm install express

S3: Create dist and src folder

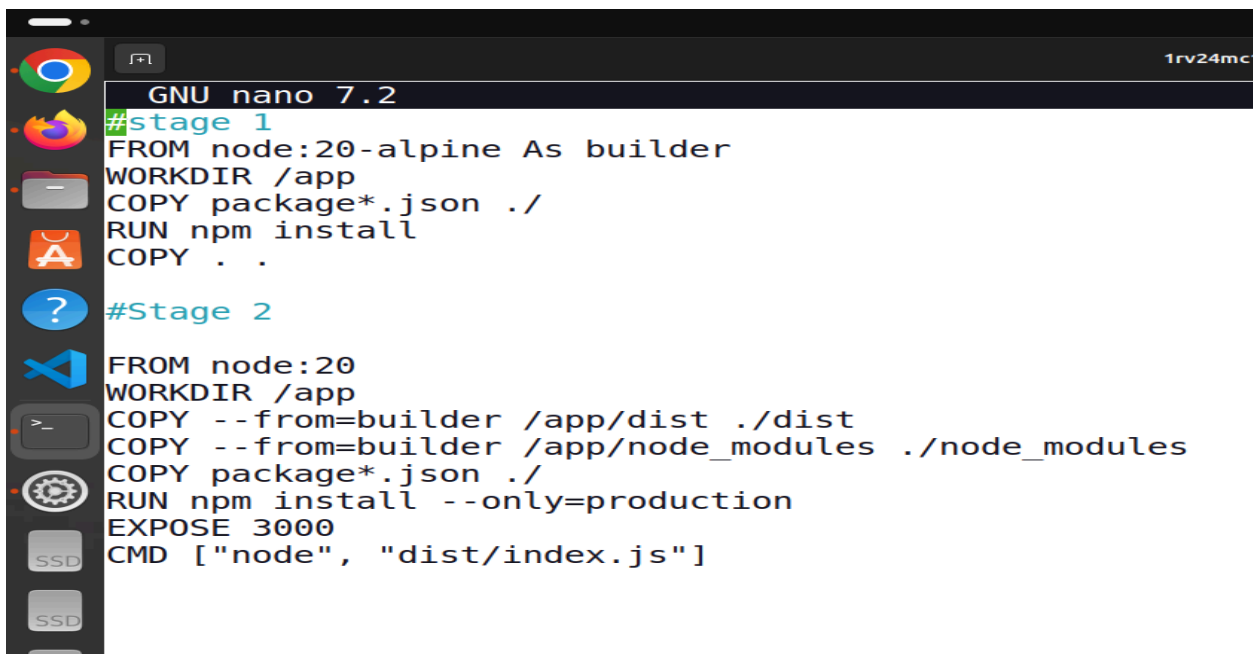
```
1rv24mc113_varun@varun-srivastava:~/DevOpslab/program2$ ls
dist  Dockerfile  node_modules  package.json  package-lock.json  src
1rv24mc113_varun@varun-srivastava:~/DevOpslab/program2$
```

S4: create [index.js](#) file in both the directory



```
GNU nano 7.2 index.js
const express=require('express')
const app=express()
const port=3000
app.get('/',(req,res)=>{
    res.send("Successful")
});
app.listen(port,()=>{
    console.log(`server run on ${port}`)
});
```

S5: Create Dockerfile



```
GNU nano 7.2
#stage 1
FROM node:20-alpine As builder
WORKDIR /app
COPY package*.json ./
RUN npm install
COPY . .

#Stage 2
FROM node:20
WORKDIR /app
COPY --from=builder /app/dist ./dist
COPY --from=builder /app/node_modules ./node_modules
COPY package*.json ./
RUN npm install --only=production
EXPOSE 3000
CMD ["node", "dist/index.js"]
```

S6: Build the image

```
docker build -t program2
```

S7: Run the file

```
docker run -p 3001:3000 program2
```

S8: Check the browser “localhost:3001”

