

Build a Docker container from a custom Dockerfile

Step 1 - Create the following directory structure

```
1rv24mc039_hardikmehta@hardik-Aspire-E5-573:~/Devops/pgrm1$ ls
Dockerfile  node_modules  package.json  package-lock.json  server.js
```

Step 2 - cd into the folder and run the command in the terminal

```
$npm init -y
$ npm install express
```

Step 3 - create the [server.js](#) file

```
const exp=require("express");
const app=exp();
const port=3000;

app.listen(port,()=>{
  console.log("server is running on port: ",port);
});

app.get("/",(req,res)=>{
  res.send("hello docker using express !!!!");
});
```

Step 4 - Write the Dockerfile

```
1rv24mc039_hardikmehta@hardik-Aspire-E5-573:~/Devops/pgrm1$ cat Dockerfile
#lab program 1
# creating the dockerfile for the express

#creating the node image
FROM node:latest

#creating the working directory inside the container
WORKDIR /app

#copy the package file and then run the command
COPY package*.json ./
RUN npm install
# copy the other files
COPY . .
#environment variable
ENV PORT=3000

#EXPOSE THE PORT
EXPOSE 3000

#command to run the file
CMD ["node","server.js"]
```

Step 5 - Build the image by running
pgrm1\$ docker build -t program1 .

Step 6 - Create and run a new container of the image by running

pgrm1\$ docker run -d -p 3000:3000 --name program1-container program1

Step 7 - Verify output

Open the browser

Search :- <http://localhost:3000>

See the output as

Hello Docker using express !!!