Node JS Program Execute on Docker

🐳 Running with Docker

1. 🔨 Build the Docker image

Command: docker build -t node-express-app .

2. ▶️ Run the container

Command: docker run -p 3000:3000 --env-file .env node-express-app

Your app will now be available at:

📎 http://localhost:3000

🧪 Running in Development Mode (with Nodemon)

If you want to enable hot-reloading (e.g., for local development):

1. Modify the Dockerfile (already set up):

CMD ["npm", "run", "dev"]

2. Rebuild and run again:

Command: docker build -t node-express-app .

Command: docker run -p 3000:3000 --env-file .env node-express-app

❌ Stop the container

Use `Ctrl+C` in the terminal or:

Command: docker ps # find your container ID

Command: docker ps -a # find your hidden container ID

Command: docker stop <id> # stop the container

Useful Scripts without Docker

`npm run dev` — Start server with Nodemon

`npm start` — Start server normally

Docker Process:

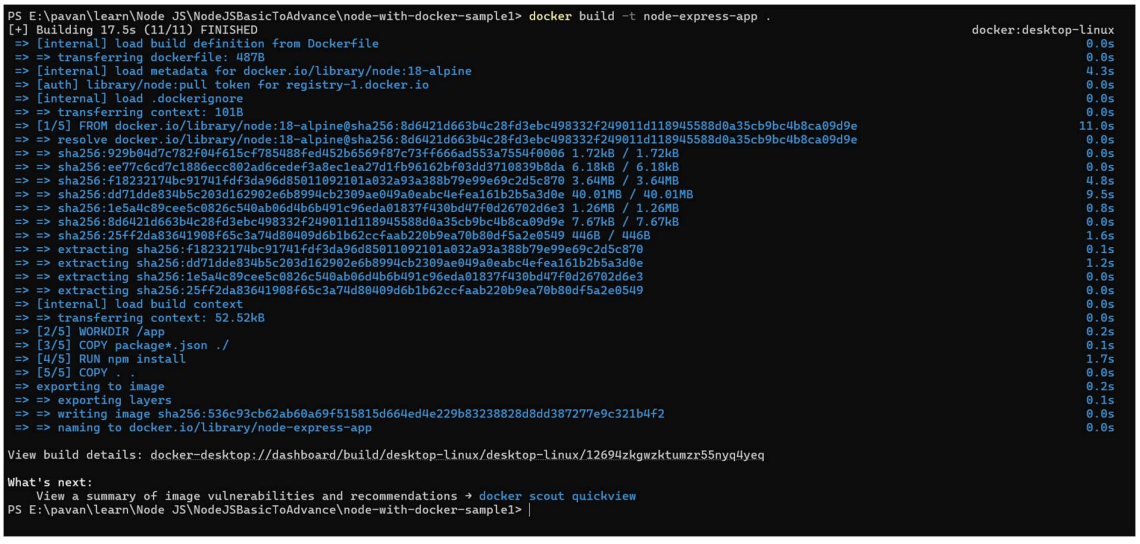
Step1: Builds a Docker image

Command: docker build -t node-express-app .

Explanation:

Part	Meaning
docker build	Tells Docker to build a new image using a Dockerfile
-t node-express-app	Tags (names) the image as node-express-app for easy reference
. (dot)	Refers to the current directory — Docker will look for the Dockerfile here

Result: This command builds a Docker image named node-express-app using the instructions in your Dockerfile.



Step 2: Runs container from an image

Command: docker run -p 3000:3000 --env-file .env node-express-app

Part	Meaning
docker run	Runs a new container from an image
-p 3000:3000	Maps port 3000 on your host (left side) to port 3000 in the container (right side)
--env-file .env	Loads environment variables from your local .env file into the container
node-express-app	The image to run — the one you just built with docker build

```
PS E:\pavan\learn\Node JS\NodeJSBasicToAdvance\node-with-docker-sample1> docker run -p 3000:3000 --env-file .env node-express-app

> node-js-and-docker@1.0.0 dev
> nodemon src/server.js

[nodemon] 3.1.10
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting `node src/server.js`
[dotenv@17.2.0] injecting env (0) from .env (tip: ⚙  override existing env vars with { override: true })
Server listening on port { port: '3000' }
```

Result: http://localhost:3000