

----DOCKER SETUP----

1) Create **.dockerignore** file (This reduces image size & speeds up build)

paste this:

```
node_modules  
dist  
.git  
.gitignore  
npm-debug.log  
.env  
Dockerfile
```

2) Create Dockerfile in project root

paste this:

```
# 1. Use Node.js base image  
FROM node:18-alpine  
  
# 2. Set work directory inside container  
WORKDIR /app  
  
# 3. Copy package.json and lock file  
COPY package*.json ./  
  
# 4. Install dependencies  
RUN npm install  
  
# 5. Copy project files  
COPY . .  
  
# 6. Build project (NestJS)  
RUN npm run build  
  
# 7. Expose the port your app uses  
EXPOSE 3000  
  
# 8. Start the application  
CMD ["npm", "run", "start"]
```

3) (Optional, recommended) Create `docker-compose.yml`
(Useful if your app uses Redis / databases / multiple services)

paste this:

```
version: '3.8'

services:
  redis:
    image: redis:latest
    container_name: redis-server
    ports:
      - "6379:6379"

  app:
    build: .
    container_name: node-app
    ports:
      - "3000:3000"
    depends_on:
      - redis
    environment:
      - REDIS_HOST=redis
      - REDIS_PORT=6379
    restart: always
```

4)Build Docker Image

docker build -t node-app .

5) Check image

docker images

6) Run Docker Container (Run without Compose)

docker run -p 3000:3000 --name node-container node-app **(replace 3000 with app port)**

Stops when you press Ctrl+C.

7) Run with Docker Compose:

Foreground: docker compose up --build

Background: docker compose up -d --build

8) Check Running Containers

docker ps

9) Stop Containers

If using Docker Compose: docker compose down

If using Docker alone: docker stop node-container
docker rm node-container

10) View Logs

docker compose logs -f

11) Rebuild the Container After Code Changes

docker compose up -d --build

12) Remove Images & Containers (clean-up)

Stop and remove: docker compose down

Remove unused images: docker image prune

Remove everything (dangerous): docker system prune -a



Summary Cheat Sheet

Action	Command
Build image	<code>docker build -t node-app .</code>
Run container	<code>docker run -p 3000:3000 node-app</code>
Start with Compose	<code>docker compose up -d --build</code>
Stop containers	<code>docker compose down</code>
Show logs	<code>docker compose logs -f</code>
List containers	<code>docker ps</code>
List images	<code>docker images</code>