

## ----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>