**Project Documentation**

**A. Application Setup (Basic)**

Create a simple "Hello from DevOps" Node.js REST API.

**Step 1: Create Project Directory**

mkdir devops

cd devops

**Step 2: Initialize a Node.js Project**

npm init -y

This creates a package.json file.

**Step 3: Install Express**

npm install express

**Step 4: Create the Application File**

Create a file called **app.js**

Paste the following code:-

const express = require('express');

const app = express();

const port = 3000;

app.get('/', (req, res) => {

res.send('Hello from DevOps');

});

app.listen(port, () => {

console.log(`Server running at http://localhost:${port}`);

});

Save and close the file.

**Step 5: Add a Start Script**

Open package.json and update the “scripts” section:

"scripts": {

"start": "node app.js"

}

**Test the App Locally**

npm start

Open your browser and go to:  
 <http://localhost:3000>  
You should see: **Hello from DevOps**

**B. Dockerization**

Write a Dockerfile to containerize the Node.js app.

**Step 1: Create a Dockerfile**

create a new file named Dockerfile.

Paste the following in dockerfile:-

FROM node:18-alpine

WORKDIR /app

COPY package\*.json ./

RUN npm install

COPY . .

EXPOSE 3000

CMD ["npm", "start"]

**Step 2: Build the Docker Image**

Make sure Docker Desktop is installed and running.

Then run:

docker build -t my-node-app .

**Step 3: Run the Docker Container**

docker run -p 3000:3000 my-node-app

**Test the App Locally**

Open your browser and go to:  
 <http://localhost:3000>  
You should see: **Hello from DevOps**