A barebones Node.js app using [Express 4]

Here’s a **barebones Node.js application** using **Express 4**. This is a minimal setup to get a Node.js app up and running with Express. It includes the necessary files (package.json, app.js, and instructions for running the app).

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**File Structure**

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node-js-sample/

├── app.js

├── package.json

└── .gitignore

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**1. package.json**

This file defines the project metadata, dependencies, and scripts.

json

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{

"name": "node-js-sample",

"version": "1.0.0",

"description": "A barebones Node.js app using Express 4",

"main": "app.js",

"scripts": {

"start": "node app.js"

},

"dependencies": {

"express": "^4.18.2"

},

"engines": {

"node": "14.x"

},

"keywords": [

"node",

"express",

"barebones"

],

"author": "Your Name",

"license": "MIT"

}

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**2. app.js**

This is the entry point for the application. It sets up a basic Express server.

javascript

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const express = require('express');

const app = express();

const port = 5000;

// Define a route for the root URL

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

res.send('Hello World!');

});

// Start the server

app.listen(port, () => {

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

});

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**3. .gitignore**

This file specifies files and directories to ignore when committing to Git.

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node\_modules/

.env

**Steps to Run the Application**

1. **Create the Project Directory**:

bash

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mkdir node-js-sample

cd node-js-sample

1. **Initialize package.json**:

* Copy the package.json content above into a file named package.json in the project directory.

1. **Install Dependencies**:

bash

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npm install

1. **Create app.js**:

* Copy the app.js content above into a file named app.js in the project directory.

1. **Run the Application**:

bash

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npm start

1. **Access the Application**:

* Open your browser and go to http://localhost:5000. You should see Hello World! displayed.

**Explanation of the Code**

1. **Express Setup**:

* The express module is imported and used to create an Express app.
* The app listens on port 5000.

1. **Route Handling**:

* A single route (/) is defined, which responds with Hello World! when accessed.

1. **Scripts**:

* The start script in package.json runs the application using node app.js.

1. **Dependencies**:

* Only express is required as a dependency.

**Dockerfile for the Barebones App**

If you want to containerize this app, here’s a simple Dockerfile:

Dockerfile

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# Use the official Node.js 14 image

FROM node:14

# Set the working directory

WORKDIR /usr/src/app

# Copy package.json and package-lock.json

COPY package\*.json ./

# Install dependencies

RUN npm install

# Copy the rest of the application code

COPY . .

# Expose port 5000

EXPOSE 5000

# Command to start the application

CMD ["npm", "start"]

**Steps to Run with Docker**

1. Build the Docker image:

bash

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docker build -t node-js-sample:1.0 .

1. Run the Docker container:

bash

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docker run -p 5000:5000 node-js-sample:1.0

1. Access the application:

* Open your browser and go to http://localhost:5000.

**Test the Application**

1. **Check the Root Route**:

* Visit http://localhost:5000 in your browser. You should see Hello World!.

1. **Check the Logs**:

* When you run the app, you should see:

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App listening at http://localhost:5000

1. **Test with curl**:

* Run the following command in your terminal:

bash

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curl http://localhost:5000

* Expected output: Hello World!.

This barebones Node.js app is a great starting point for building more complex applications. You can add routes, middleware, and other features as needed!