ExpressJS

Node.js Accelerator – Jan’23

Agenda

1. Overview of incremental project
2. Sending and receiving events with EventEmitters
3. Express Framework

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Node.js Accelerator

Jan’2022

Incremental project

- Reviewing a higher level incremental project specs

Events review

- Let’s review our code that can send and receive events from the EventEmitter

Express.js

- Most famous Node.js framework for building API’s regarding (link)
- Great for building Rest API’s
- Lots of libraries, like Apollo/GraphQL and others
- Used as base for other frameworks like NestJS and others

Express.js: anatomy

A basic express application usually contains:

- **Route** configuration to define the requests our API can handle
- **Services** for tasks such as connecting to our database models, doing queries, or connecting to external services that are required by the specific request
- **Middleware** for running specific request validations before the final controller of a route handles its specifics
- **Models/Entities** for defining data models matching a given database schema, to facilitate data storage and retrieval
- **Controllers** for separating the route configuration from the code that finally (after any middleware) processes a route request, calls the above service functions if necessary, and gives a response to the client

More details about the above on [this Toptal Blog]

Create an app

- Using their CLI to generate a javascript scaffolded Express app
- Using a third party CLI to generate a Typescript scaffolded Express app (or pre made with nx)
- Manually starting your Express app

App and Server

As a good practice, let's split our application out of the main.ts that starts the server.

This will allow us in the future to run e2e tests by importing the app itself.

Routes

- Handling routes
- Error handling with appropriate HTTP codes

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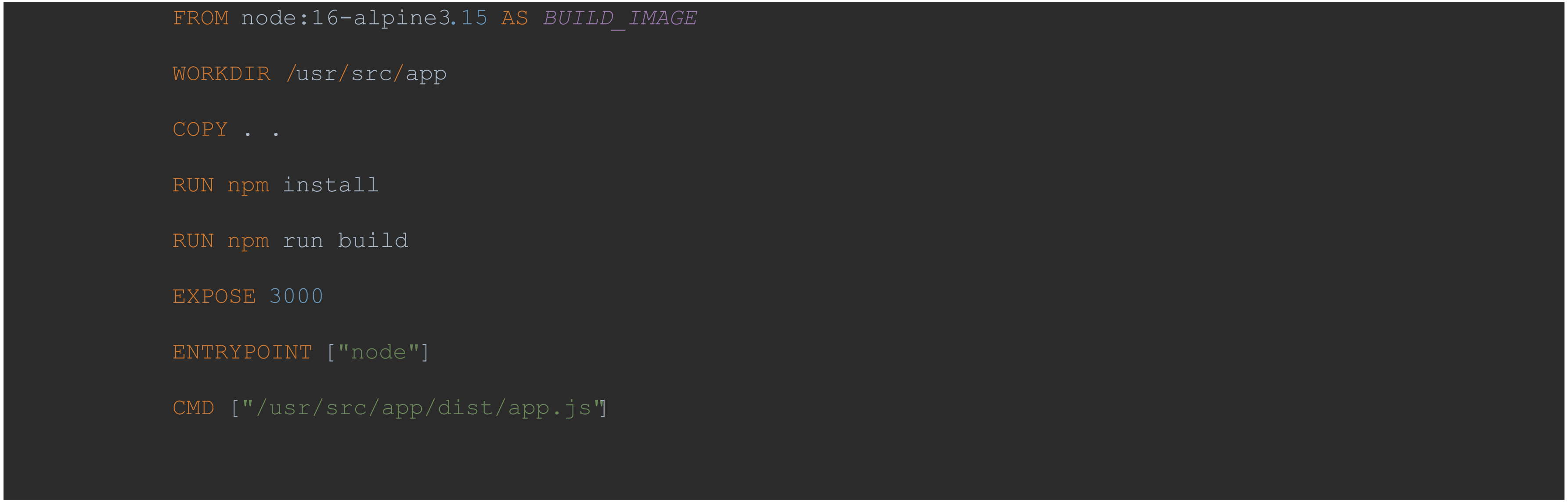
Docker receipt



```
FROM node:16-alpine3.15 AS BUILD_IMAGE

WORKDIR /usr/src/app

COPY . .

RUN npm install

RUN npm run build

EXPOSE 3000

ENTRYPOINT ["node"]

CMD ["/usr/src/app/dist/app.js"]
```

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ACTION ITEMS

Week 2

Action Items

Udemy Path

1. We strongly recommend you to explore below module through Udemy this week and learn about Node.js essentials

Module	Topic	Description	Udemy Link	
Self-paced learning on Udemy	Optional : TypeScript	Get started with TypeScript, understand basic types, OOPs concepts, advanced types & custom types, generics, decorators	Click Here	8hr 27min
Self-paced learning on Udemy	Node Core Modules, Async programming	Understand core modules in node.js like file system, http, learn about command line argos, async programming i.e. http requests, handling errors, callback functions	Click Here	5hr 51min

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