TypeScript RESTful API

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Sebelum Belajar

- Kelas JavaScript dari Programmer Zaman Now
- Kelas MySQL dari Programmer Zaman Now
- Kelas NodeJS dari Programmer Zaman Now
- Kelas TypeScript dari Programmer Zaman Now

Requirement

Requirement

- Pada kelas ini, kita akan coba membuat RESTful API untuk Contact Management, dimana RESTful API yang akan kita buat memiliki fitur sebagai berikut :
- User Management
- Contact Management
- Address Management

User Management Requirement

User Data

- Username
- Password
- Name

User API

- Register User
- Login User
- Update User
- Get User
- Logout User

Contact Management Requirement

Contact Data

- First Name
- Last Name
- Email
- Phone

Contact API

- Create Contact
- Update Contact
- Get Contact
- Search Contact
- Remove Contact

Address Management Requirement

Contact Address Data

- Street
- City
- Province
- Country
- Postal Code

Address API

- Create Address
- Update Address
- Get Address
- List Address
- Remove Address

Membuat Project

Membuat Project

- Buat folder belajar-typescript-restful-api
- npm init

Menambah Package Zod

- npm install zod

Menambah Package ExpressJS

- npm install express
- npm install --save-dev @types/express
- https://www.npmjs.com/package/express

Menambah Package Prisma

- npm install --save-dev prisma
- https://www.prisma.io/

Menambah Package Winston

- npm install winston
- https://www.npmjs.com/package/winston

Menambah Package BCrypt

- npm install bcrypt
- npm install --save-dev @types/bcrypt
- https://www.npmjs.com/package/bcrypt

Menambah Library Jest untuk Unit Test

- npm install --save-dev jest @types/jest
- https://www.npmjs.com/package/jest

Menambah Library Babel

- npm install --save-dev babel-jest @babel/preset-env
- https://babeljs.io/setup#installation

Setup TypeScript untuk Jest

- npm install --save-dev @babel/preset-typescript
- npm install --save-dev @jest/globals
- https://jestjs.io/docs/getting-started#using-typescript

Menambah Library Supertest

- npm install --save-dev supertest @types/supertest
- https://www.npmjs.com/package/supertest

Menambah TypeScript

- npm install --save-dev typescript
- https://www.npmjs.com/package/typescript

Setup TypeScript Project

- npx tsc --init
- Semua konfigurasi akan dibuat di file tsconfig.json
- Ubah "module" menjadi "commonjs"
- Ubah "moduleResolution" menjadi "Node"
- Tambahkan include src/**/*
- Ubah outDir menjadi "./dist"

User API Spec

Contact API Spec

Address API Spec

Setup Database

Setup Database

- Buatlah database belajar_typescript_restful_api

Setup Prisma

- npx prisma init

User Model

Contact Model

Address Model

Setup Project

Kode : Setup Prisma

```
7+ usages   new *
export const prismaClient = new PrismaClient();
```

Kode : Setup Winston

```
5+ usages    👤 Eko Kurniawan Khannedy
export const logger = winston.createLogger({
    level: 'info',
    format: winston.format.json(),
    transports: [
        new winston.transports.Console({})
    ],
})
```

Kode : Setup Express

```
1 usage    new *
export const web = express();
web.use(express.json());
```

Setup Prisma Log

- https://www.prisma.io/docs/concepts/components/prisma-client/working-with-prismaclient/logging

Register User API

Login User API

Menambah Package UUID

- npm install uuid
- npm install --save-dev @types/uuid
- https://www.npmjs.com/package/uuid

Get User API

Update User API

Logout User API

Create Contact API

Get Contact API

Update Contact API

Remove Contact API

Search Contact API

Create Address API

Get Address API

Update Address API

Remove Address API

List Address API

Distribution File

Manual Test

Penutup