Api localhost Utilizando Node.JS & Express

Criando o projeto

```
npm init -y
```

Instalando as dependências do projeto

```
npm install express nodemon
```

npm: nodemon

Simple monitor script for use during development of a Node.js app.. Latest version: 2.0.22, last published: 2 months ago. Start using nodemon in your project by running `npm i nodemon`.

https://www.npmjs.com/package/nodemon

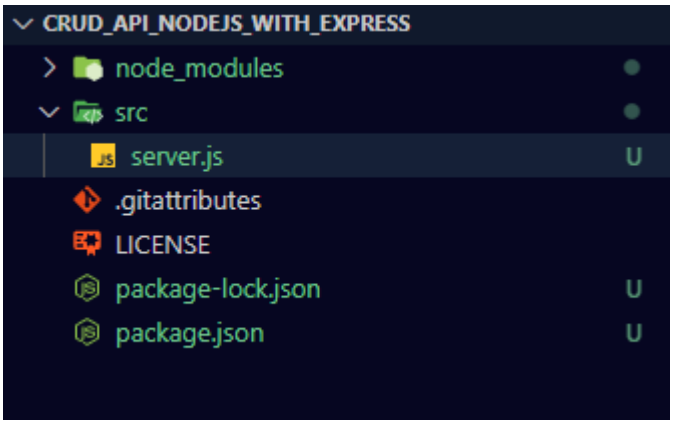
npm: express

Fast, unopinionated, minimalist web framework. Latest version: 4.18.2, last published: 7 months ago. Start using express in your project by running `npm i express`. There are 71972 other

https://www.npmjs.com/package/express

Criando o Arquivo principal

Após a instalação das dependências, você deverá criar um pasta na raiz do projeto chamada src, onde deverá conter o arquivo server.js



Criando a estrutura inicial do servidor

```
const express = require('express');

const main = ()=>{
    const app = express();
    const port = 3000;

    app.listen(port,()=> console.log('started server - localhost:3000'))
}

main();
```

Iniciando o servidor

```
{
  "name": "crud_api_nodejs_with_express",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "start": "nodemon src/server.js"
  },
```

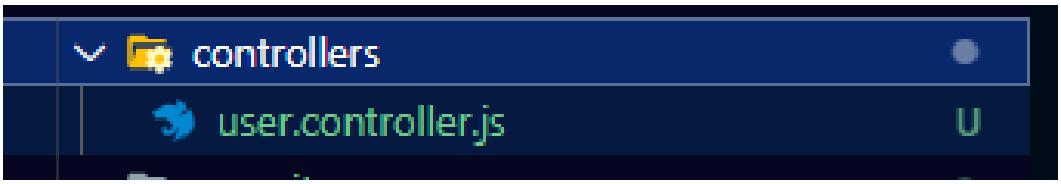
```
  "keywords": [],
  "author": "",
  "license": "ISC",
  "dependencies": {
    "express": "^4.18.2",
    "nodemon": "^2.0.22"
  }
}
```

Ao rodar no terminal o seguinte comando [npm start], ele irá startar o servidor na porta 3000, por conta da seguinte linha do arquivo acima

```
"start": "nodemon src/server.js"
```

Criando a Controller de manipulação de dados

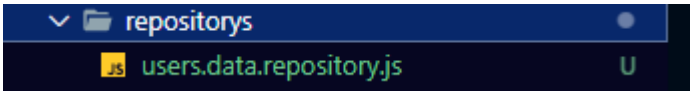
Na raiz do projeto iremos criar a pasta controller/user.controller.js




```
const { userDataRepository } = require("../repositorys/users.data.repository");

class UserController{

    getUsers(request, response){
        return response.json(userDataRepository.usersData);
    }

    putUsers(request, response){
        const {name} = request.body;
        const newUser = {
            id: userDataRepository.usersData.length + 1,
            name,
        };

        userDataRepository.usersData.push(newUser);

        return response.json(newUser);
    }

    deleteUsers(request, response){

        let jsonApiMessage = [];
```

```
        try {
            const {id} = request.params;

            console.log(id);

            const getAllUsers = userDataRepository.usersData;

            userDataRepository.usersData = getAllUsers.filter((item) =>item.id !== id);

            jsonApiMessage = {
                "code" : "200",
                "message" : `user ${id} deleted`
            }

        } catch (error) {
            jsonApiMessage = {
                "code" : "500 ",
                "message" : "Internal Server Error:"
            }
        }

        return response.json(jsonApiMessage);
    }

}

const userController = new UserController();

module.exports = {
    userController,
}
```

Agora crie outra pasta na raiz do projeto, relacionado ao repositório



e para que iremos utilizar? Nesse arquivo iremos criar um variavel do tipo lista, com dados pré setados, e com isso já iremos iniciar a nossa api com dados.

```
let usersData = [];

class UserDataRepository{
    usersData = [
                    {
                        "id" : 1,
                        "name": "Miguel Henrique"
                    },
                    {
```

```
                        "id" : 2,
                        "name": "Gabriel"
                    },
                    {
                        "id" : 3,
                        "name": "Felipe"
                    },
                    {
                        "id" : 4,
                        "name": "Carlos"
                    }
    ]

}

const userDataRepository = new UserDataRepository();

module.exports = {
    userDataRepository,
}
```

Agora iremos criar o arquivo de rotas da api, que irá ficar na raiz do projeto também

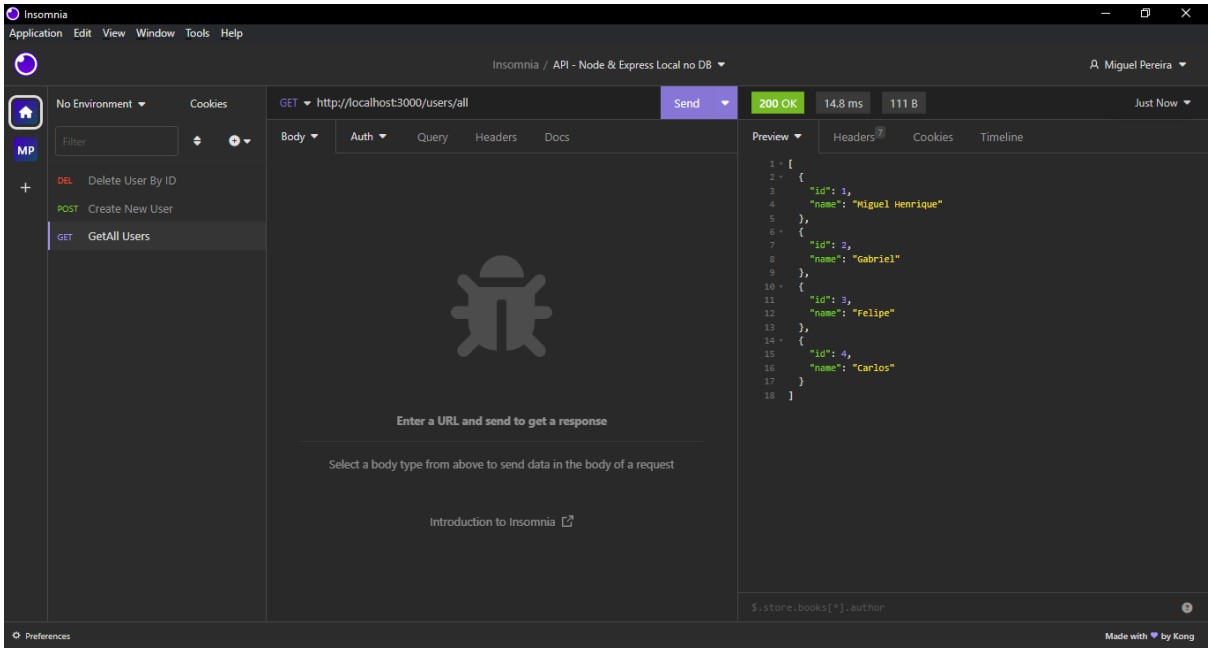

```
const {Router} = require('express');
const { userController } = require('../controllers/user.controller');

const userRouter = Router();

userRouter.use(
   '/users',
   userRouter.get('/all',userController.getUsers),
   userRouter.post('/',userController.putUsers),
   userRouter.delete('/:id',userController.deleteUsers),
)

module.exports = {
    userRouter,
}
```

E para finalizar iremos atualizar o arquivo server.js, para o express ler o json

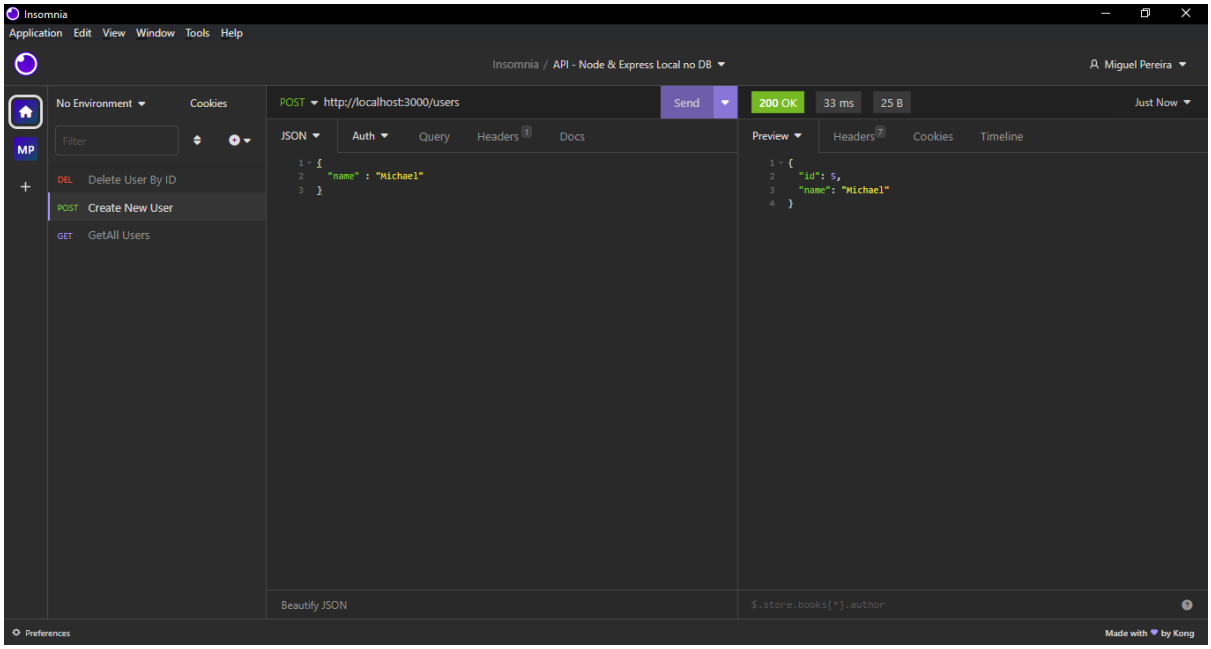
```
const express = require('express');
const { userRouter } = require('./routes/user.router');
```

```
const main = ()=>{
    const app = express();
    const port = 3000;

    app.use(express.json());
    app.use(userRouter);


    app.listen(port,()=> console.log('started server - localhost:3000'))
}

main();
```

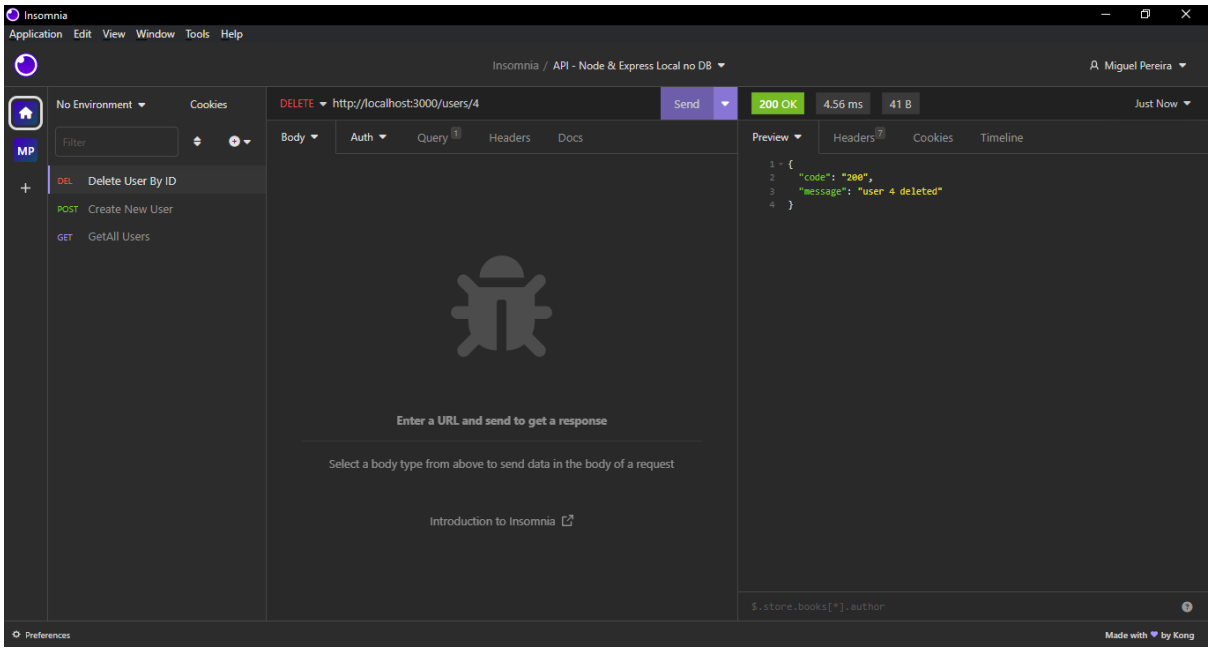
Com isso ao realizar as requisições nos caminhos das rotas utilizando o insominia



http://localhost:3000/users/all



http://localhost:3000/users



http://localhost:3000/users/4