Lesson 05 Demo 07

Implementing APIs in Node.js

Objective: To create a Node.js app using the fetch API for fetching the list of users from the server

Tools required: Node Package Manager and Visual Studio Code

Prerequisites: Basic Linux Commands, NPM commands, JavaScript, and fetch module

Steps to be followed:
1. Install the fetch API package
2. Create a Node.js app to fetch users

Step 1: Install the fetch API Package

1.1 Open the terminal and inside the project directory execute the following command to initialize a Node.js project and generate the **package.json** file:
npm init -y

```
1: labuser@ubuntu2204: ~/Desktop/nodeProjec/demo4                          +  ×

labuser@ubuntu2204:~/Desktop/nodeProjec/demo4$ npm init -y
Wrote to /home/labuser/Desktop/nodeProjec/demo4/package.json:

{
  "name": "demo4",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}


labuser@ubuntu2204:~/Desktop/nodeProjec/demo4$ 
```

1.2 Open the terminal and inside the project directory execute the following command to the fetch API package:

npm install node-fetch@latest

```
1: labuser@ubuntu2204: ~/Desktop/nodeProjec/demo4 ▼                          A⌶  +  ×
labuser@ubuntu2204:~/Desktop/nodeProjec/demo4$ npm install node-fetch@latest
npm notice
npm notice New patch version of npm available! 10.2.4 -> 10.2.5
npm notice Changelog: https://github.com/npm/cli/releases/tag/v10.2.5
npm notice Run npm install -g npm@10.2.5 to update!
npm notice
npm ERR! code EACCES
npm ERR! syscall mkdir
npm ERR! path /home/labuser/node_modules/fsevents
npm ERR! errno -13
npm ERR! Error: EACCES: permission denied, mkdir '/home/labuser/node_modules/fse
vents'
npm ERR!  [Error: EACCES: permission denied, mkdir '/home/labuser/node_modules/f
sevents'] {
npm ERR!   errno: -13,
npm ERR!   code: 'FACCES'
```

Step 2: Create a Node.js app to fetch users

2.1 Create a new source file named **index.js** and enter the below code:

const fetch = (...args) => import('node-fetch').then(({ default: fetch }) => fetch(...args));

fetch("https://reqres.in/api/users?page=2")
.then((value) => value.json())
.then((res) => {
let users = res['data'];
console.log(users);
})

```js
JS index.js   ●
JS index.js > ...
  1   const fetch = (...args) => import('node-fetch').then(({ default: fetch }) => fetch(...args));
  2
  3   fetch("https://reqres.in/api/users?page=2")
  4       .then((value) => value.json())
  5 ⌄     .then((res) => {
  6           let users = res['data'];
  7           console.log(users);
  8       })
```

2.2 Execute the following command in the terminal to run the Node.js app:
node index.js

```
demopython1yopm@ip-172-31-16-204:~/Desktop/nodeProjec/demo4$ node index.js
[
  {
    id: 7,
    email: 'michael.lawson@reqres.in',
    first_name: 'Michael',
    last_name: 'Lawson',
    avatar: 'https://reqres.in/img/faces/7-image.jpg'
  },
  {
    id: 8,
    email: 'lindsay.ferguson@reqres.in',
    first_name: 'Lindsay',
    last_name: 'Ferguson',
    avatar: 'https://reqres.in/img/faces/8-image.jpg'
  },
  {
    id: 9,
    email: 'tobias.funke@reqres.in',
    first_name: 'Tobias',
    last_name: 'Funke',
    avatar: 'https://reqres.in/img/faces/9-image.jpg'
  },
  {
    id: 10,
    email: 'byron.fields@reqres.in',
    first_name: 'Byron',
    last_name: 'Fields',
    avatar: 'https://reqres.in/img/faces/10-image.jpg'
  },
  {
    id: 11,
    email: 'george.edwards@reqres.in',
    first_name: 'George',
    last_name: 'Edwards',
    avatar: 'https://reqres.in/img/faces/11-image.jpg'
  },
  {
    id: 12,
    email: 'rachel.howell@reqres.in',
    first_name: 'Rachel',
    last_name: 'Howell',
    avatar: 'https://reqres.in/img/faces/12-image.jpg'
  }
]
```

By following these steps, you have successfully created a Node.js app using the fetch API for fetching the list of users from the server.