

**HO CHI MINH INTERNATIONAL UNIVERSITY
UNIVERSITY OF SCIENCE
INFORMATION TECHNOLOGY**



Introduction of Software Engineering

**INDIVIDUAL CODING
ASSIGNMENT 01**

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Class: 20CLC04

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1. Information:

ID	Full name	Role
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2. Overview:

- My role in Project is backend
- **Link github:** https://github.com/vtLam123/project_SE1.git
- **Coding language:** Javascript
- **Tools:**
 - o NodeJS: Environment to code back-end.
 - o Postman: An application to help us test our server (GET, POST, PATCH, DELETE requests).
- **Package in NodeJS:**
 - o Nodemon
 - o Cors
 - o Express
 - o Express-mongo-sanitize
 - o Express-rate-limit
 - o Hpp
 - o Xss-clean
- **Database:** MongoDB

3.API:

- In this self – practice parts, I have learned to use NodeJS to code my backend servers.
- I have created some API support GET, POST, PATCH, DELETE request from user.
- 5 API modules from this Servers are:
 - o Course
 - o Orther
 - o Review
 - o Teacher
 - o User

3.1 Running Server:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER
```

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell <https://aka.ms/pscore6>

PS E:\Lam\daï hoc\3) năm ba (2022-2023)\học kì 1\Nhập môn kỹ thuật phần mềm\project1> npm start

> projectse1@1.0.0 start
> nodemon server.js

[nodemon] 2.0.20
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,json
[nodemon] starting `node server.js`
App is running on port 5000...

Using nodemon to run Server on port 5000

3.2 Setup application:

```
project1 > JS app.js > ...
1  const express = require('express');
2  const rateLimit = require('express-rate-limit'); 4.6k (gzipped: 1.8k)
3  const mongoSanitize = require('express-mongo-sanitize'); 1.3k (gzipped: 649)
4  const xss = require('xss-clean'); 6.1k (gzipped: 2.4k)
5  const hpp = require('hpp'); 159.4k (gzipped: 26.4k)
6  const cors = require('cors'); 4.5k (gzipped: 1.9k)
7
8  const courseRouter = require('./routes/courseRoutes')
9  const orderRouter = require('./routes/orderRoutes')
10 const reviewRouter = require('./routes/reviewRoutes')
11 const teacherRouter = require('./routes/teacherRoutes')
12 const userRouter = require('./routes/userRoutes')
13
14 const app = express();
15
16 app.use(cors());
17 app.use(mongoSanitize());
18 app.use(xss());
19 app.use(hpp());
20
21 app.use('/api/v1/course', courseRouter);
22 app.use('/api/v1/order', orderRouter);
23 app.use('/api/v1/review', reviewRouter);
24 app.use('/api/v1/teacher', teacherRouter);
25 app.use('/api/v1/user', userRouter);
26
27
28 module.exports = app;
```

File application

3.3 Package json:

```
project1 > {} package.json > ...
1  {
2    "name": "projectse1",
3    "version": "1.0.0",
4    "description": "",
5    "main": "index.js",
6    "scripts": {
7      "test": "node test.js",
8      "start": "nodemon server.js"
9    },
10   "author": "volam",
11   "license": "ISC",
12   "devDependencies": {
13     "nodemon": "^2.0.20"
14   },
15   "dependencies": {
16     "cors": "^2.8.5",
17     "express": "^4.18.2",
18     "express-mongo-sanitize": "^2.2.0",
19     "express-rate-limit": "^6.6.0",
20     "hpp": "^0.2.3",
21     "xss-clean": "^0.1.1"
22   }
23 }
```

File package json

3.4 Create server:

```
project1 > JS server.js > ...
1  const app = require("./app");
2
3  const port = process.env.PORT || 5000;
4
5  const server = app.listen(port, () => {
6    console.log(`App is running on port ${port}...`);
7  });
```

File create server

3.5 Course API:

```

project1 > routes > JS courseRoutes.js > ...
1  const express = require('express');
2  const courseRouter = express.Router();
3
4
5  courseRouter.get('/')
6  courseRouter.get('/:id')
7  courseRouter.get('/recommend')
8  courseRouter.get('/search/:key')
9
10 courseRouter.post('/create')
11 courseRouter.patch('/update')
12
13 courseRouter.delete('/delete')
14
15 module.exports = courseRouter;

```

Some requests related to the course

3.6 Order API:

```

project1 > routes > JS orderRoutes.js > ...
1  const express = require('express');
2  const orderRouter = express.Router();
3
4  orderRouter.post('/')
5
6  orderRouter.patch('/cancel')
7
8  module.exports = orderRouter;

```

Some requests related to the order

3.7 Review API:

```

project1 > routes > JS reviewRoutes.js > ...
1  const express = require('express');
2  const reviewRouter = express.Router();
3
4
5  reviewRouter.get('/')
6  reviewRouter.get('/:id')
7
8  reviewRouter.post('/create')
9  reviewRouter.patch('/update')
10
11 reviewRouter.delete('/delete')
12
13 module.exports = reviewRouter;

```

Some requests related to the review

3.8 Teacher API:

```
project1 > routes > JS teacherRoutes.js > ...
1  const express = require('express');
2  const teacherRouter = express.Router();
3
4
5  teacherRouter.get('/')
6  teacherRouter.get('/:id')
7  teacherRouter.get('/search/:key')
8
9
10 teacherRouter.post('/create')
11 teacherRouter.patch('/update')
12
13 teacherRouter.delete('/delete')
14
15 module.exports = teacherRouter;
```

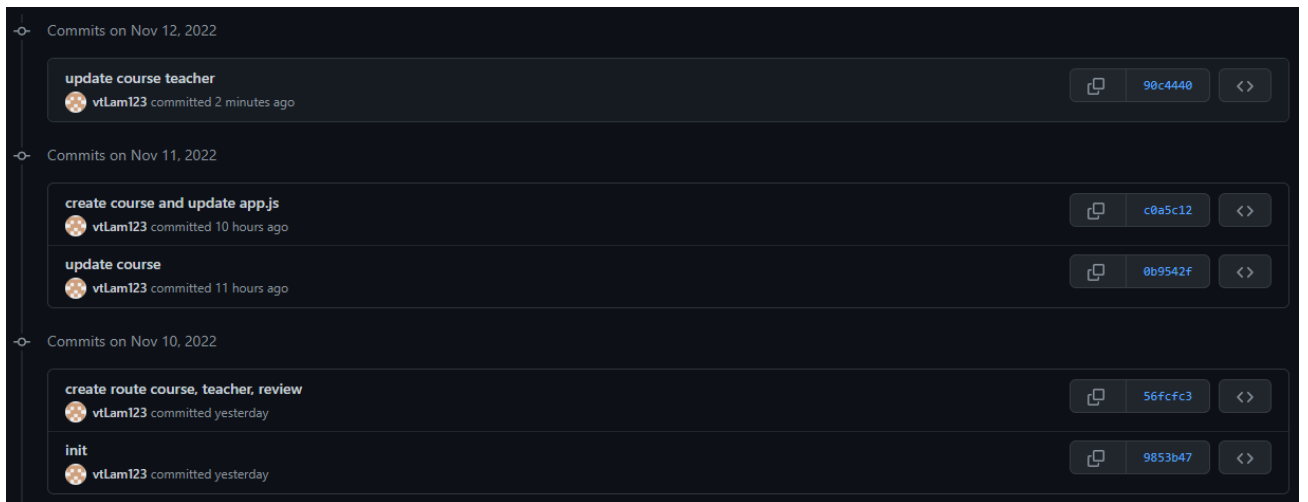
Some requests related to the teacher

3.9 User API:

```
project1 > routes > JS userRoutes.js > ...
1  const express = require('express');
2  const userRouter = express.Router();
3
4
5  userRouter.post('/signup')
6  userRouter.post('/login')
7  userRouter.post('/update')
8
9  module.exports = userRouter;
```

Some requests related to the user

4. Github Commits:



5. References:

<https://stackjava.com/nodejs/tao-project-node-js-voi-npm-command-line-cmd-terminal.html>

<https://longnv.name.vn/lap-trinh-nodejs/huong-dan-restful-api-trong-nodejs>

<https://github.com/github/gitignore/blob/main/Node.gitignore>