README

I decided to implement the solution using NestJS, as it is one of the most commonly used JavaScript backend frameworks.

I used MongoDB as the database, with auto-generated ids
Example id: "66bd3679252175147b5f4747"

There must be a **MongoDB** server running at **http://localhost:27017**

The app will produce a **"course-db"** database automatically.
And it will create a collection called **"courses"** where there will be all the courses.

Modules to be installed:

```
npm i -g @nestjs/cli
npm install @nestjs/mongoose mongoose class-validator class-transformer
npm install --save-dev @nestjs/testing jest @types/jest ts-jest
npm install mongodb-memory-server
```

To run the app:

```
npm run start:dev
```

To test the endpoints:

```
npm run test
```

To access the REST API:

Server Endpoint:

http://localhost:3000

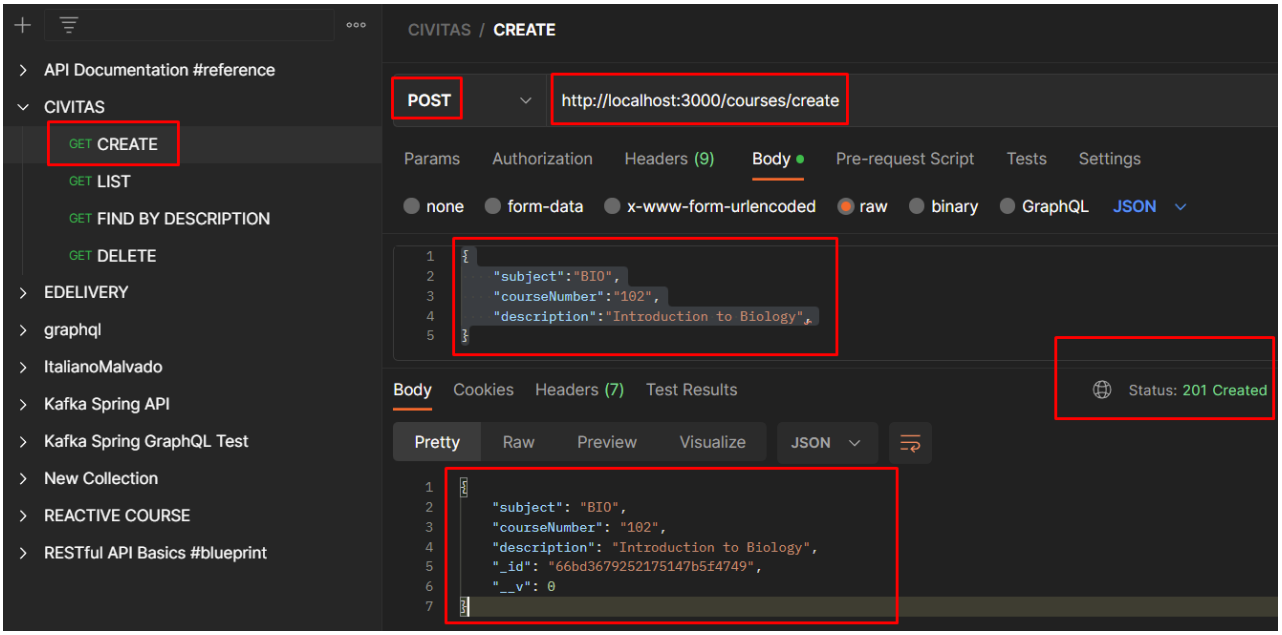
1) POST /courses/create

- Create a new course.

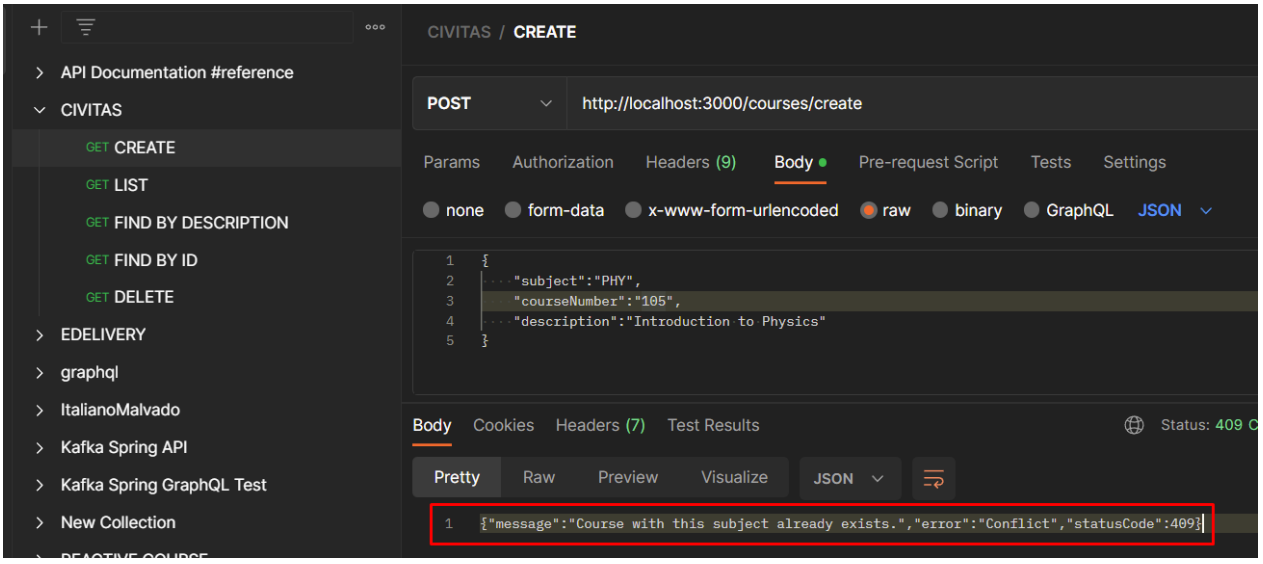
```
http://localhost:3000/courses/create

BODY
{
    "subject":"BIO",
    "courseNumber":"102",
    "description":"Introduction to Biology"
 }


RETURN VALUE
 {
    "subject": "BIO",
    "courseNumber": "102",
    "description": "Introduction to Biology",
    "_id": "66bd3679252175147b5f4749",
    "__v": 0
}
```

Examples:

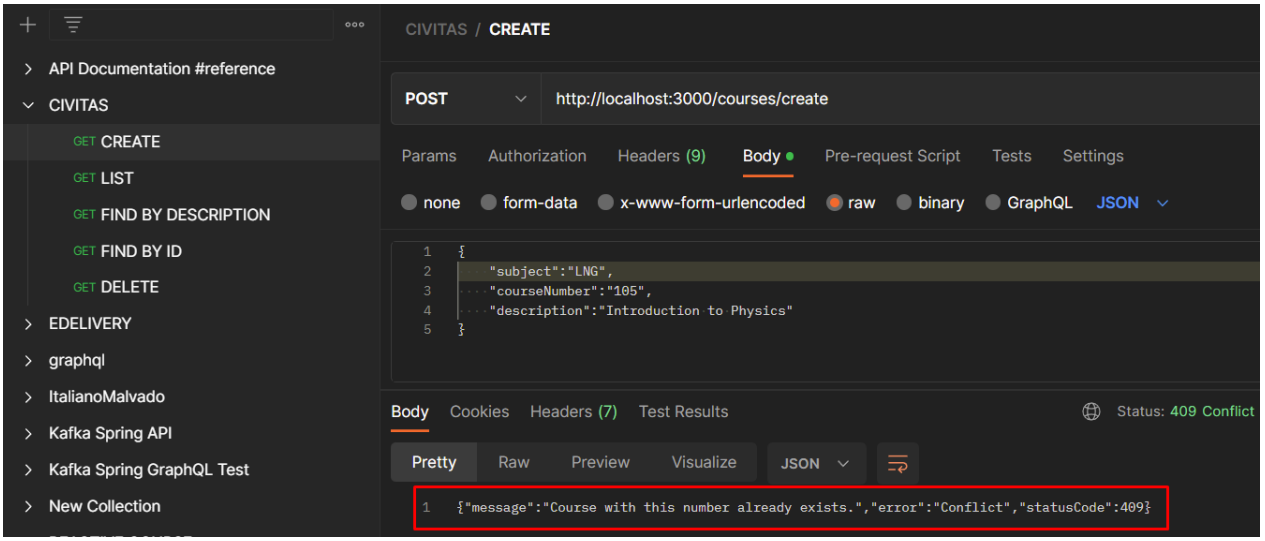
Creating a new Course



Attempt to create a Course with existing Subject:



Attempt to create a Course with existing Number:

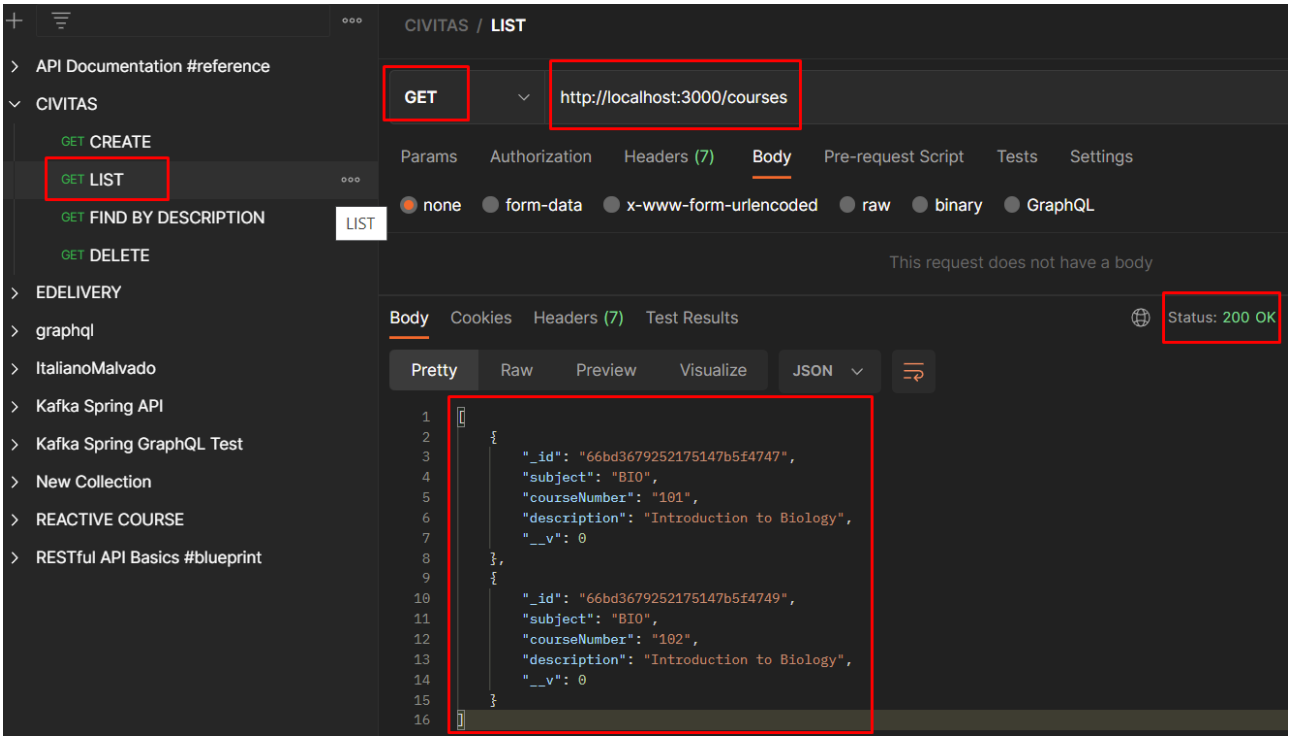


2) GET /courses

- Gets All Courses.

```
http://localhost:3000/courses
```

Example:

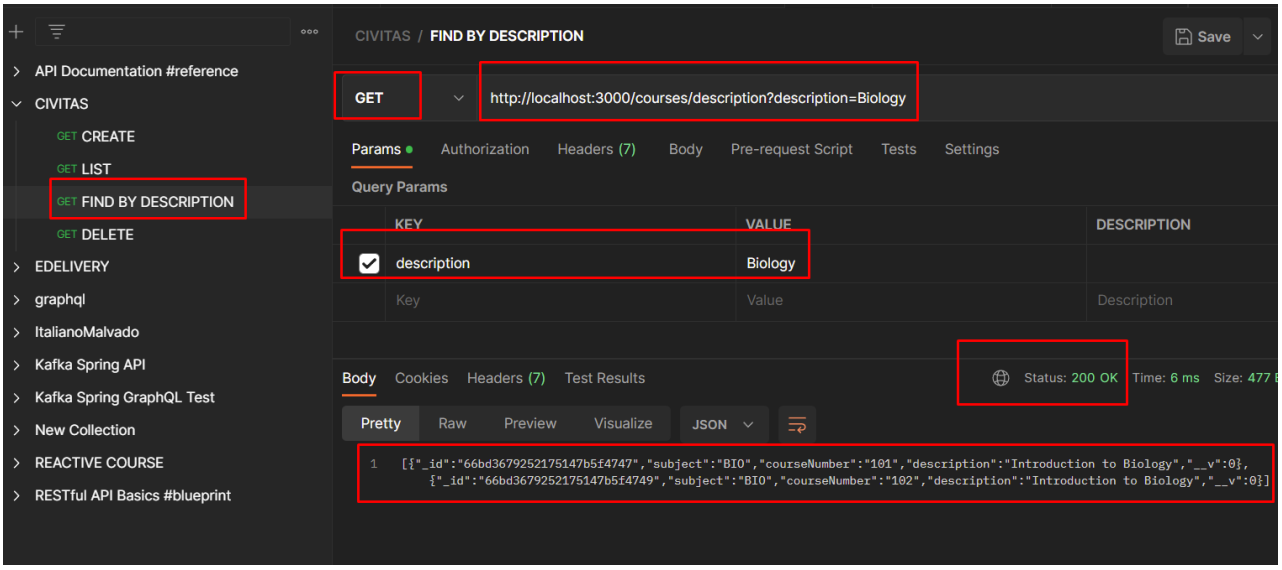


3) GET /courses/description

- Gets All Courses searching in the Description field.

```
http://localhost:3000/courses/description?description=<TEXT>

Headers:

description:string

The value to search into the "description" field
```

Examples:



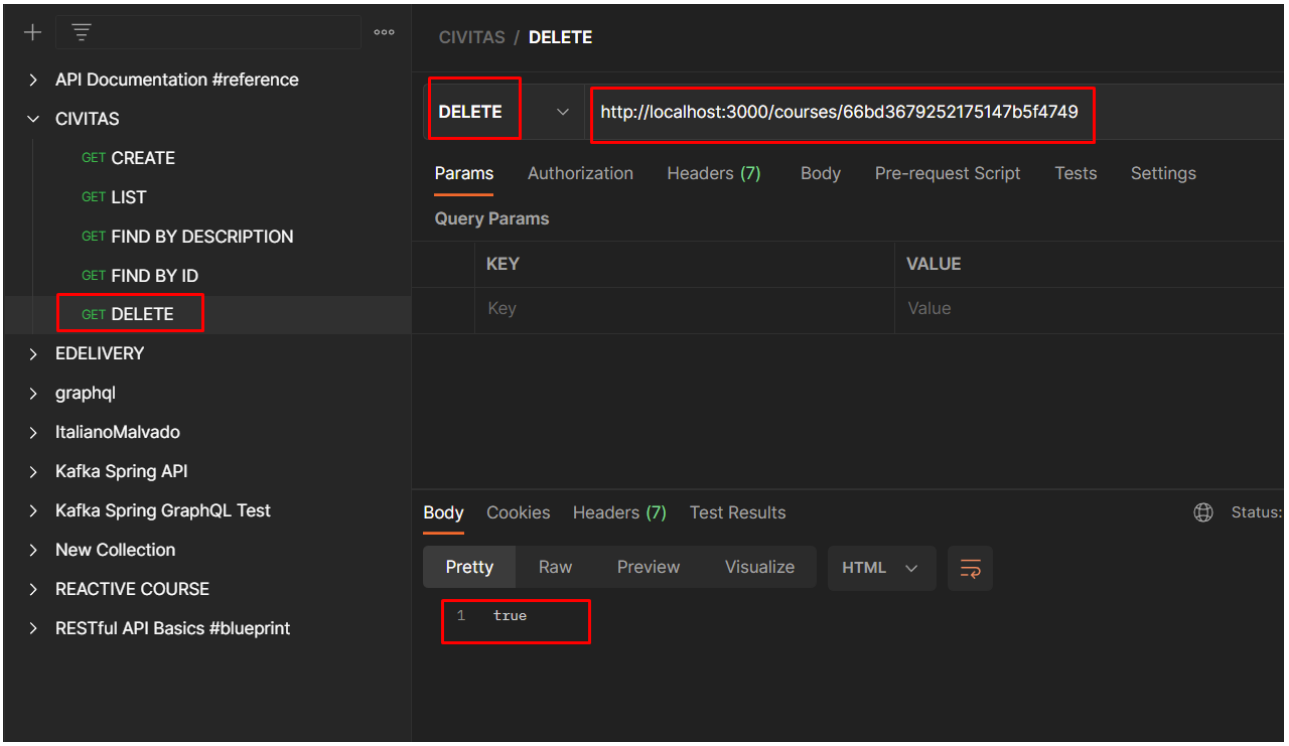
4) DELETE /courses/{id}

- Deletes Course by id.

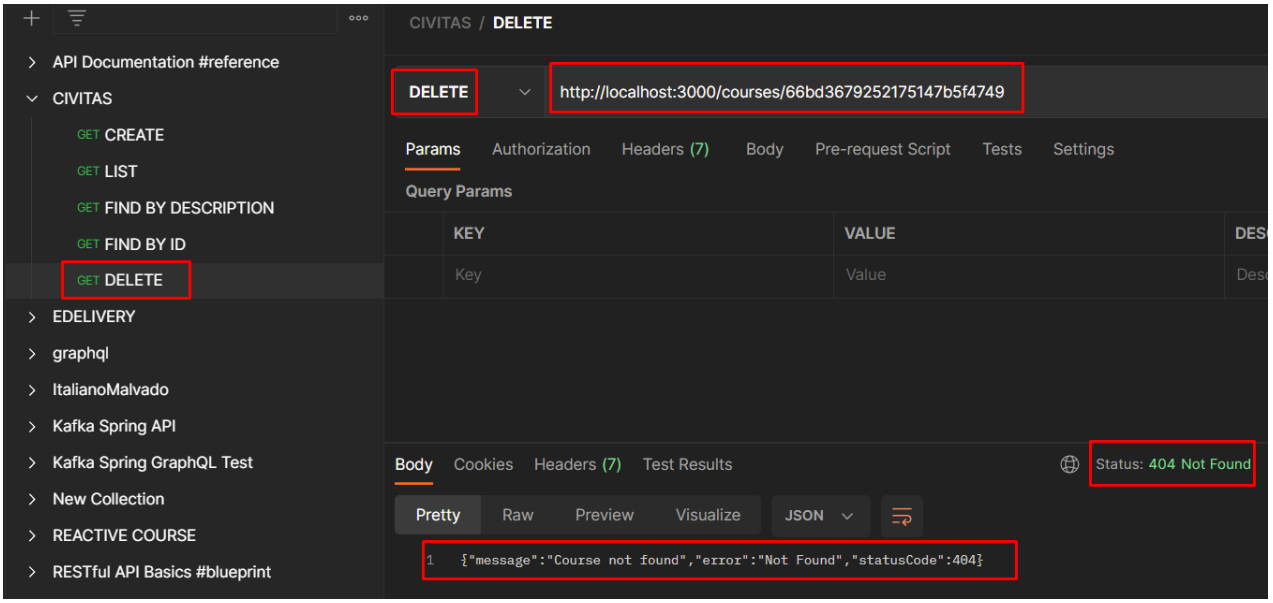
```
http://localhost:3000/courses/<ID>
```

Examples:

Deleting an existing record:



Attempting to delete an nonexistent id:



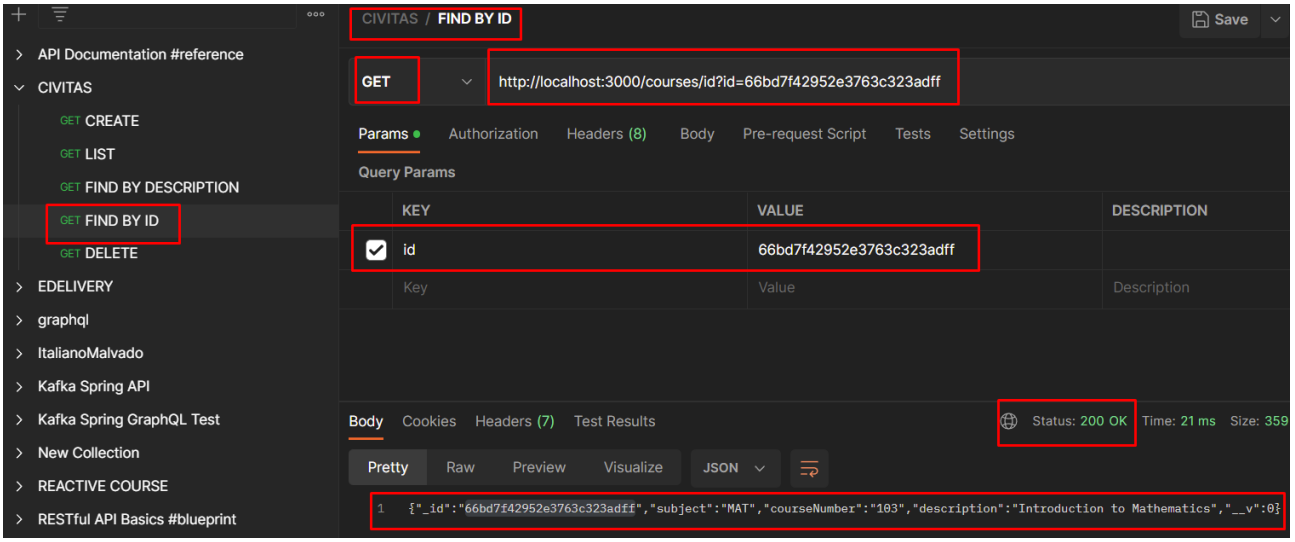
5) DELETE/courses/id

- Deletes Course by id.

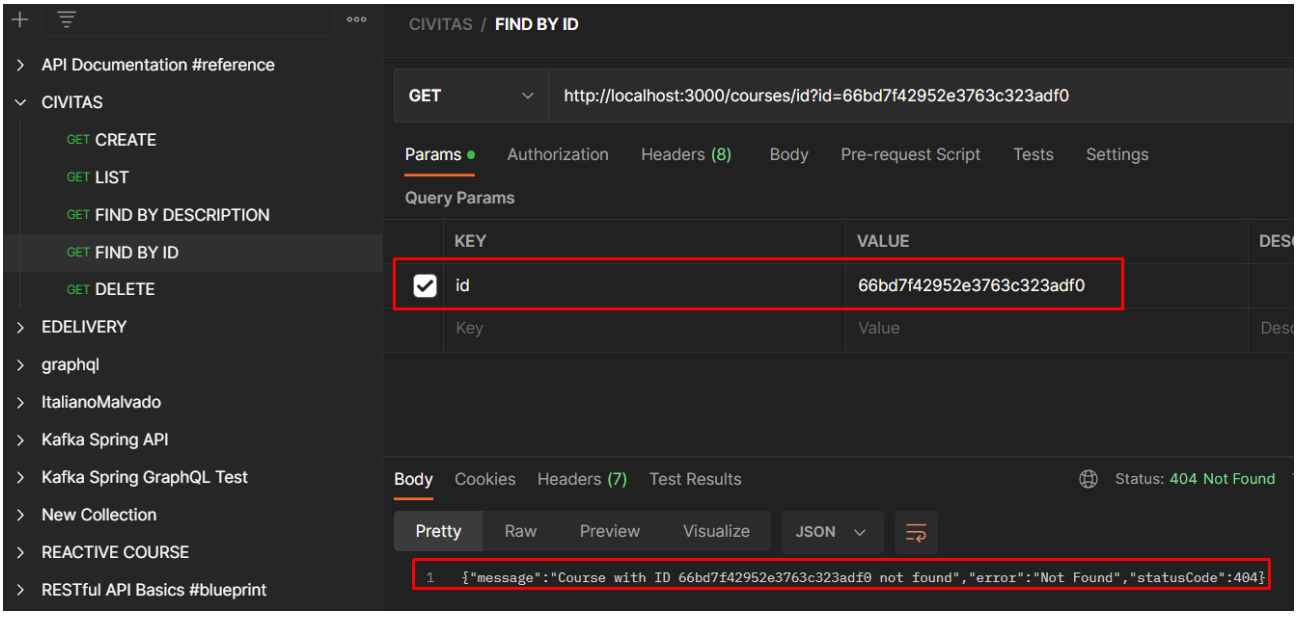
```
http://localhost:3000/courses/id?id=<ID>
```

Examples:

Existing ID



Wrong ID



TESTS:

```
npm run test

> civitas@0.0.1 test
> jest

 PASS  src/app.controller.spec.ts
 PASS  src/course/course.controller.spec.ts

Test Suites: 2 passed, 2 total
Tests:       6 passed, 6 total
Snapshots:   0 total
Time:        3.584 s, estimated 5 s
Ran all test suites.
```