

Routes:

1) Method: 'GET' & URL: '/products' & Status: 200 OK

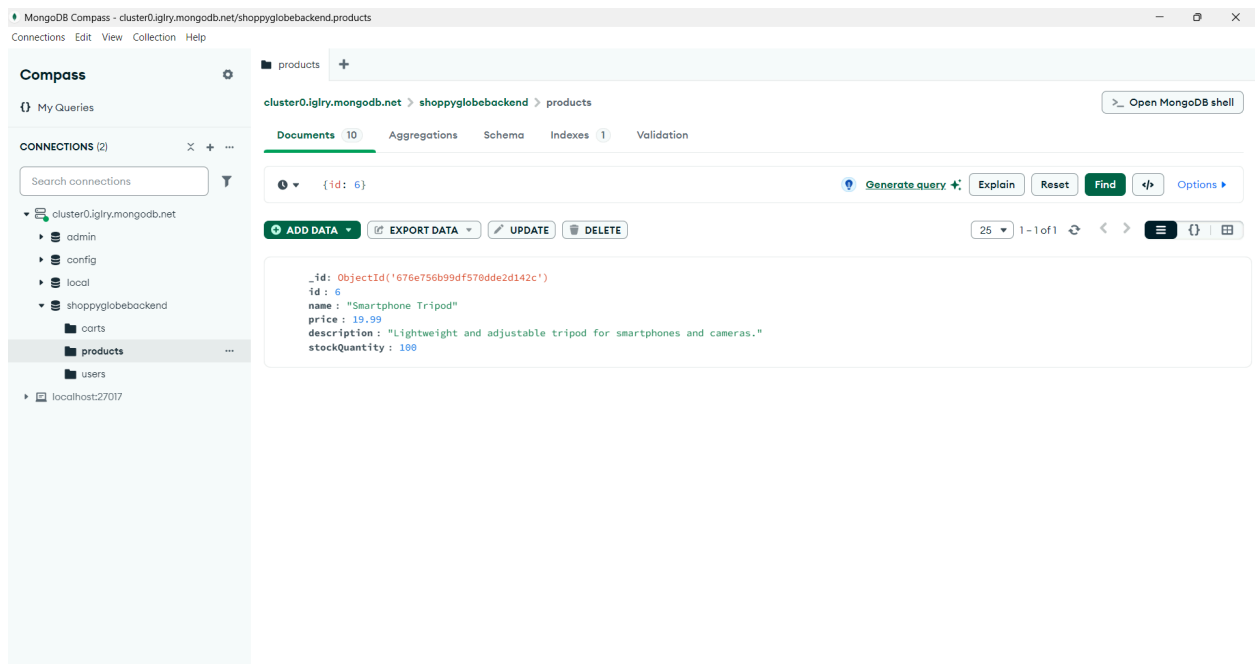
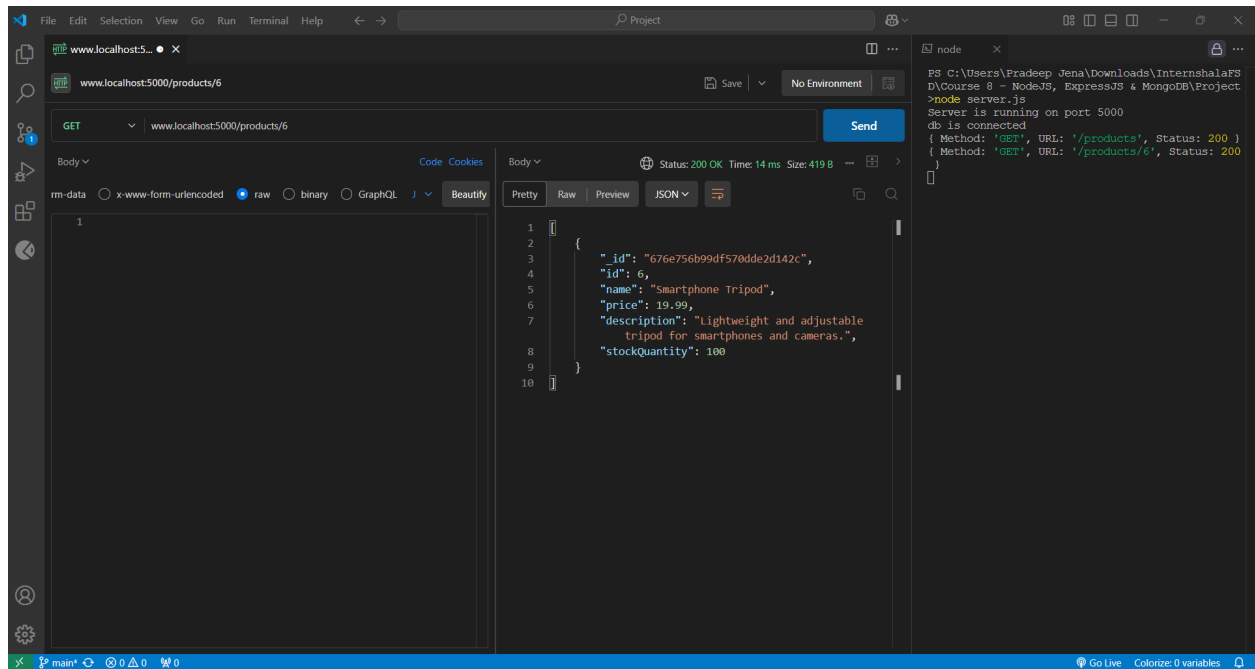
The screenshot shows the VS Code interface with a REST client request configured. The URL is `www.localhost:5000/products` and the method is `GET`. The response status is `200 OK` with a time of `83 ms` and a size of `2.01 KB`. The response body is a JSON array of three product objects:

```
[{"_id": "676e756b99df578dde2d142f", "id": 9, "name": "Laptop Stand", "price": 24.99, "description": "Adjustable and portable laptop stand for ergonomic use.", "stockQuantity": 70}, {"_id": "676e756b99df578dde2d1430", "id": 10, "name": "Smart Plug", "price": 14.99, "description": "Wi-Fi-enabled smart plug compatible with Alexa and Google Assistant.", "stockQuantity": 80}, {"_id": "676e756b99df578dde2d142c", "id": 6, "name": "Smartphone Tripod", "price": 19.99, "description": "Lightweight and adjustable tripod for smartphones and cameras.", "stockQuantity": 100}]
```

The screenshot shows the MongoDB Compass interface. The left sidebar displays the database structure, including the `shoppyglobebackend` database and the `products` collection. The main panel shows the `products` collection with 10 documents. The first four documents are displayed:

```
{ "_id": ObjectId("676e756b99df578dde2d142f"), "id": 9, "name": "Laptop Stand", "price": 24.99, "description": "Adjustable and portable laptop stand for ergonomic use.", "stockQuantity": 70 }, { "_id": ObjectId("676e756b99df578dde2d1430"), "id": 10, "name": "Smart Plug", "price": 14.99, "description": "Wi-Fi-enabled smart plug compatible with Alexa and Google Assistant.", "stockQuantity": 80 }, { "_id": ObjectId("676e756b99df578dde2d142c"), "id": 6, "name": "Smartphone Tripod", "price": 19.99, "description": "Lightweight and adjustable tripod for smartphones and cameras.", "stockQuantity": 100 }, { "_id": ObjectId("676e756b99df578dde2d1428"), "id": 2, "name": "Gaming Mouse", "price": 29.99 }
```

2) Method: 'GET' & URL: '/products/6' & Status: 200 OK



3) Method: 'GET' & URL: '/carts' & Status: 200 OK

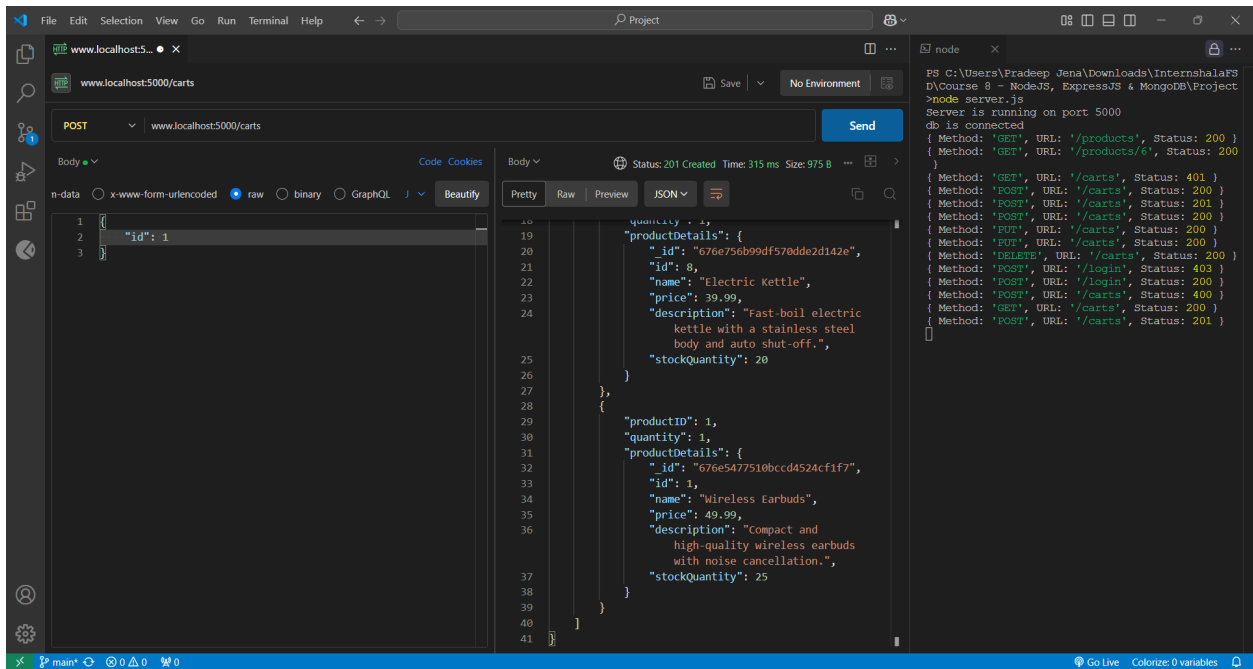
The screenshot shows the VS Code interface with a REST client extension. The request is a GET to `www.localhost:5000/carts`. The response is a 200 OK status with a JSON array of two cart items. The first item has a product ID of 3, a quantity of 2, and details for a 4K monitor. The second item has a product ID of 8, a quantity of 1, and details for an electric kettle.

```
1 [{"productID": 3, "quantity": 2, "productDetails": {"_id": "676e756b99df570dde2d1429", "id": 3, "name": "4K Monitor", "price": 299.99, "description": "Ultra HD 4K monitor with vibrant colors and sharp visuals.", "stockQuantity": 10}}, {"productID": 8, "quantity": 1, "productDetails": {"_id": "676e756b99df570dde2d142e", "id": 8, "name": "Electric Kettle", "price": 39.99, "description": "Fast-boil electric kettle with a stainless steel body and auto shut-off.", "stockQuantity": 20}}]
```

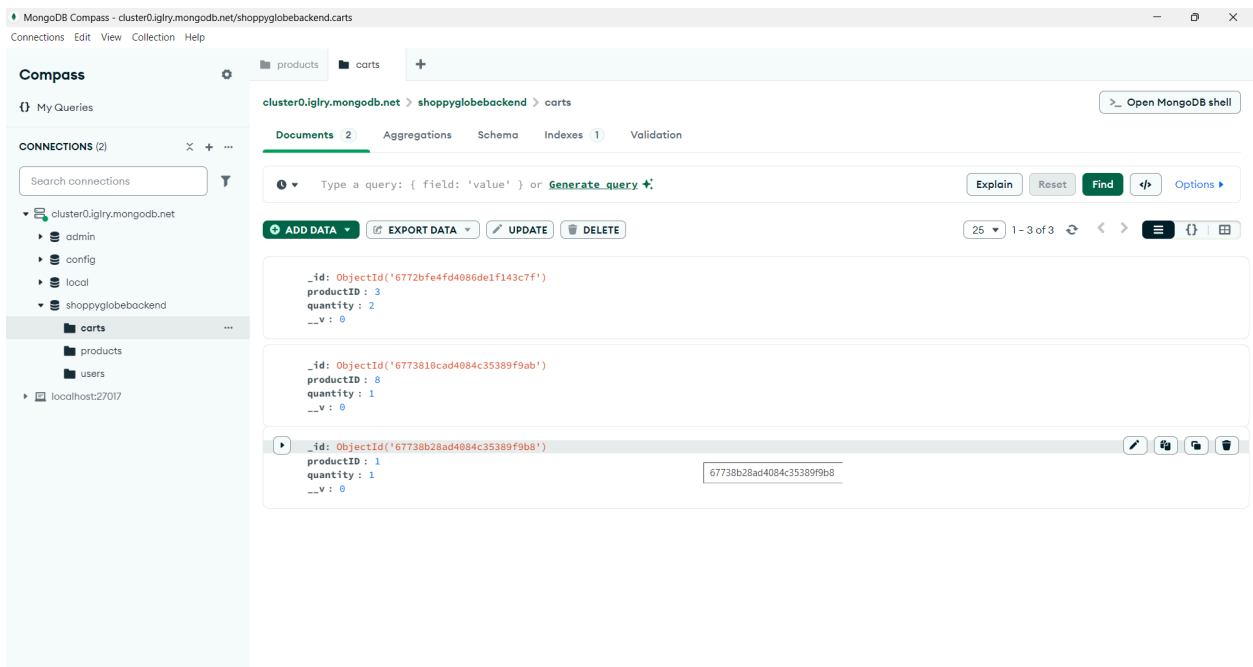
The screenshot shows the MongoDB Compass interface. The 'users' collection is selected, and three documents are displayed. Each document contains an _id, username, password, and __v field.

```
{ "_id": ObjectId("67728f099d1bbc93906dc1c6"), "username": "hehe", "password": "$2a$10$mvFE72FB3H37h3K.FrZwB.ukuMi.KZouzB8vp80cvJKW8wn4/eU.m", "__v": 0 }, { "_id": ObjectId("6772c4224e9d5db7b78452e6"), "username": "pradeep", "password": "$2a$10$57swAPpeL18VjVr/2fr.wL.yefftyx3x3RNCwb/p/3f80/IM293y5G", "__v": 0 }, { "_id": ObjectId("6772c4224e9d5db7b78452e6"), "username": "pradeep", "password": "$2a$10$57swAPpeL18VjVr/2fr.wL.yefftyx3x3RNCwb/p/3f80/IM293y5G", "__v": 0 }
```

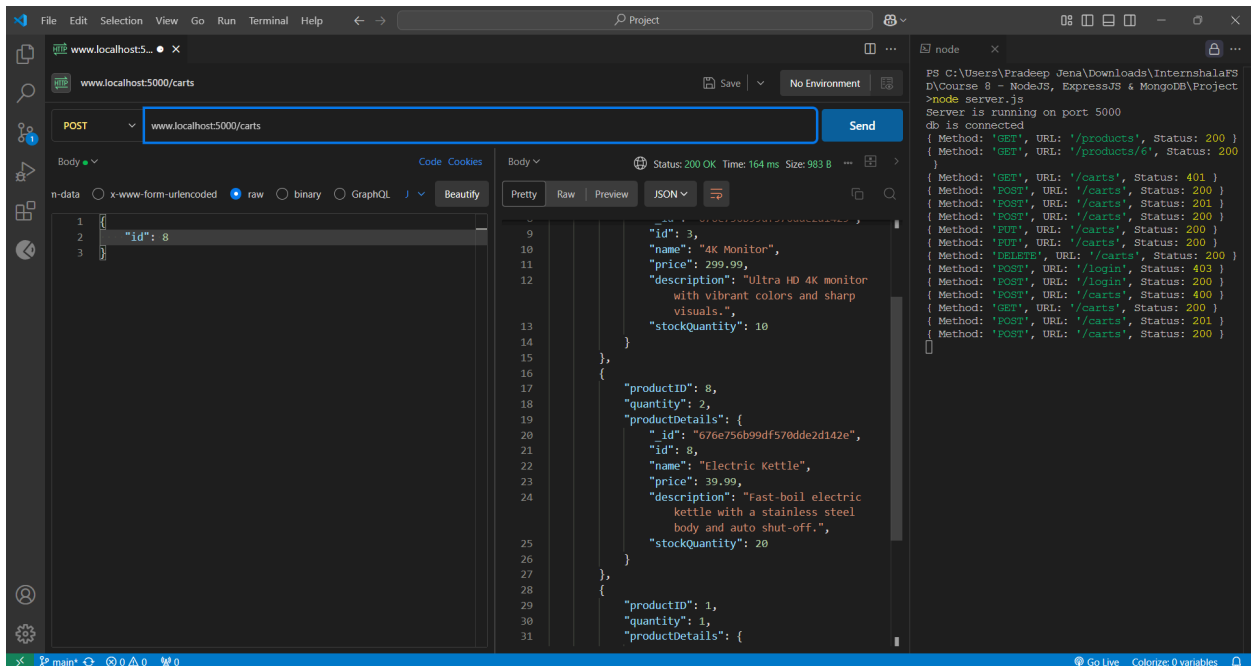
4) Method: 'POST' & URL: '/carts' & Status: 201 Created



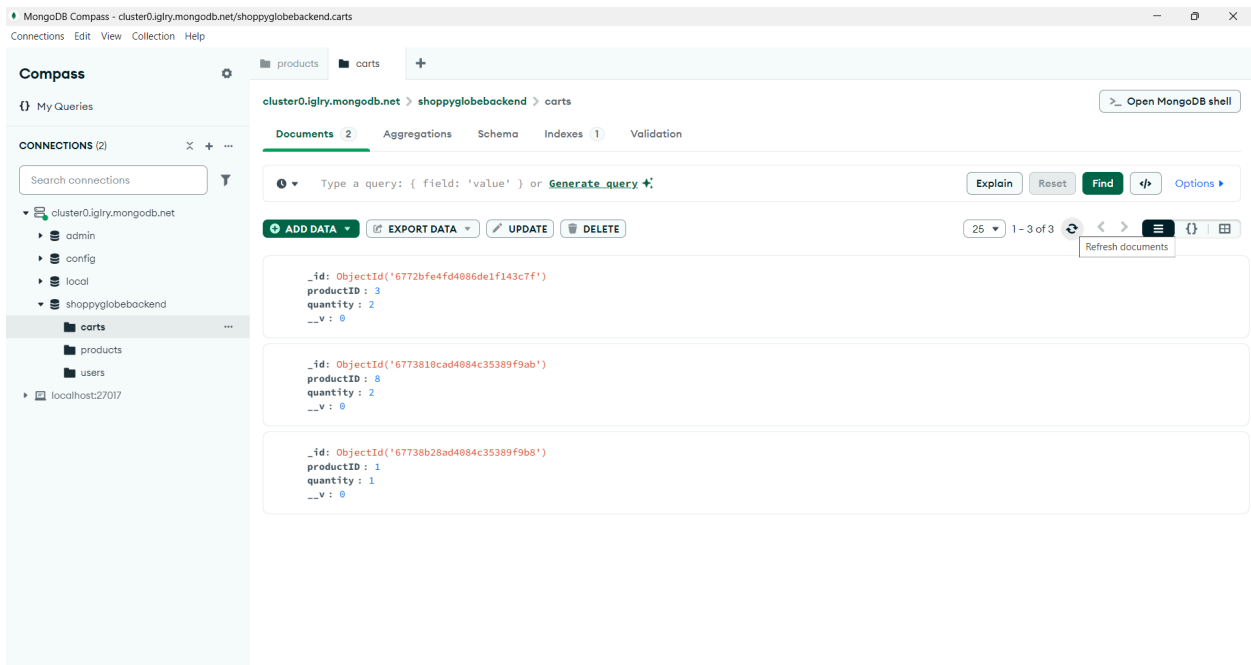
In case the product is not in the cart then it will add it to the cart.



5) Method: 'POST' & URL: '/carts' & Status: 200 OK



If the product is in the cart then, increase the quantity of the cart.



6) Method: 'PUT' & URL: '/carts' & Status: 200 OK

The screenshot shows the VS Code interface with a REST client extension. The PUT request is configured with the URL `www.localhost:5000/carts` and a JSON body:

```
{  "id": 8,  "quantity": 10}
```

The response is a 200 OK status with a detailed JSON object:

```
{  "productID": 8,  "quantity": 10,  "productDetails": {    "_id": "676e756b99df570dde2d142e",    "id": 8,    "name": "Electric Kettle",    "price": 39.99,    "description": "Fast-boil electric kettle with a stainless steel body and auto shut-off.",    "stockQuantity": 20  },  "price": 299.99,  "description": "Ultra HD 4K monitor with vibrant colors and sharp visuals.",  "stockQuantity": 10}
```

The terminal window on the right shows the Node.js server running on port 5000, with a log of API requests and responses.

Set the quantity of product 8 to 10

The screenshot shows the MongoDB Compass interface. The 'carts' collection is selected, and the document for productID 8 is highlighted. The document structure is as follows:

```
{  "_id": ObjectId("6772bfe4fd4086de1f143c7f"),  "productID": 3,  "quantity": 2,  "__v": 0}
```

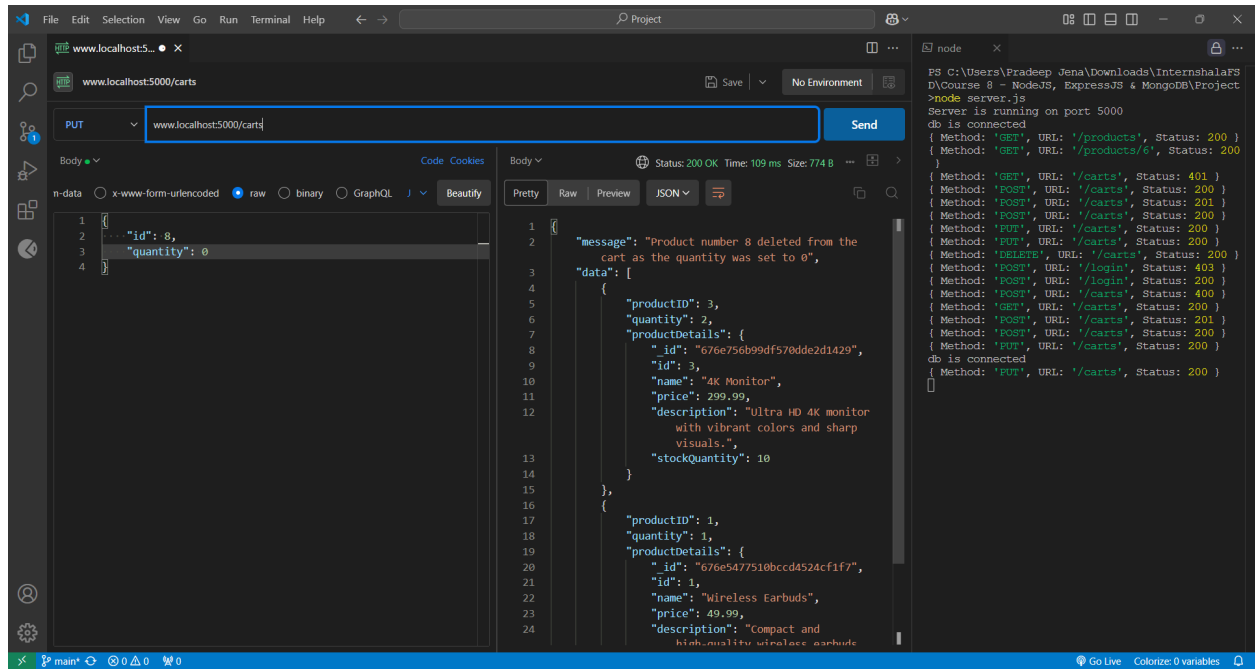
The document for productID 8 is:

```
{  "_id": ObjectId("6773810cad4084c35389f9ab"),  "productID": 8,  "quantity": 10,  "__v": 0}
```

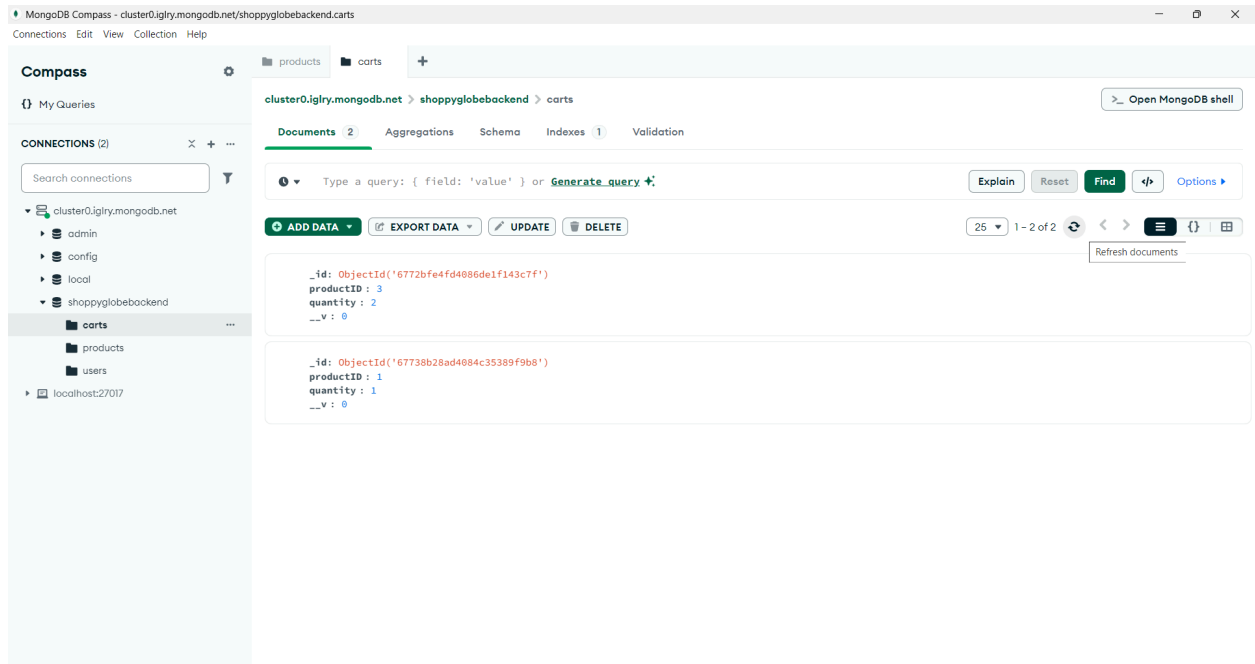
The document for productID 1 is:

```
{  "_id": ObjectId("67738b28ad4084c35389f9b8"),  "productID": 1,  "quantity": 1,  "__v": 0}
```

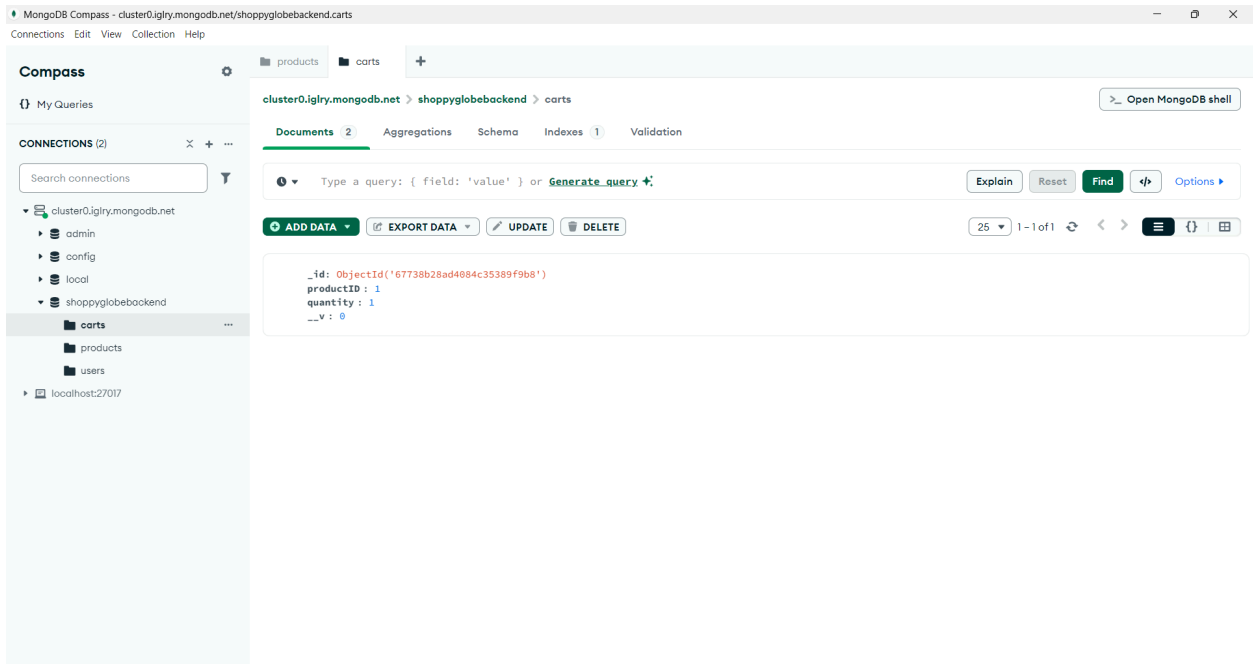
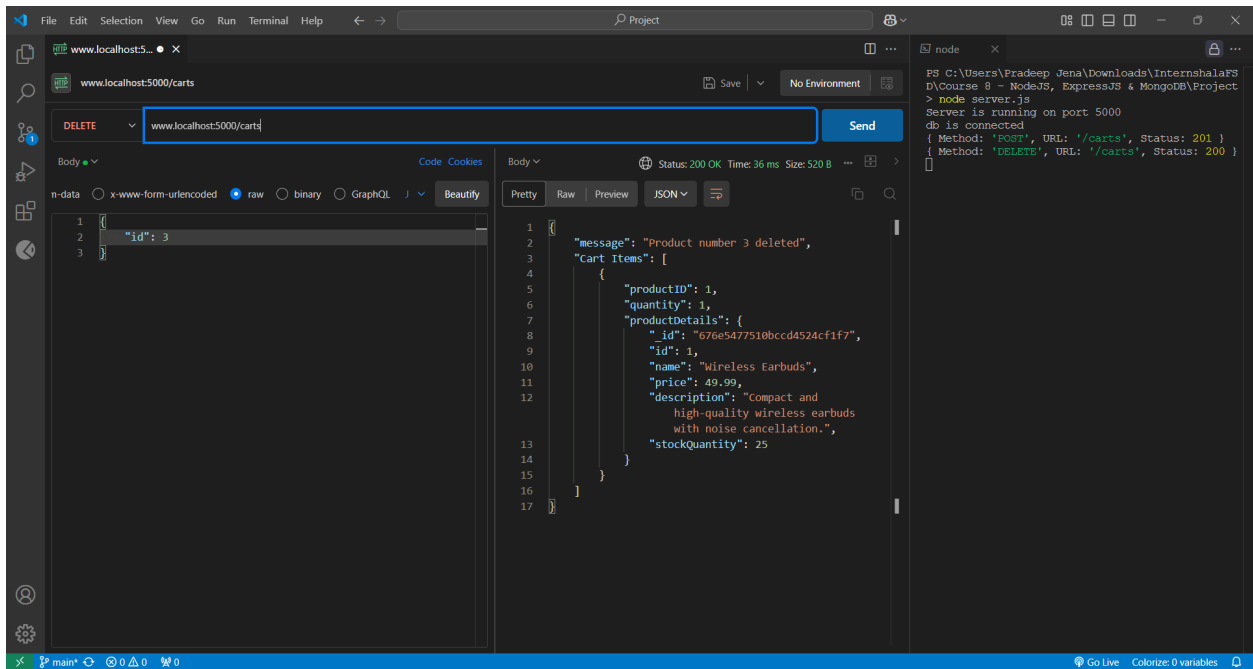
7) Method: 'PUT' & URL: '/carts' & Status: 200 OK



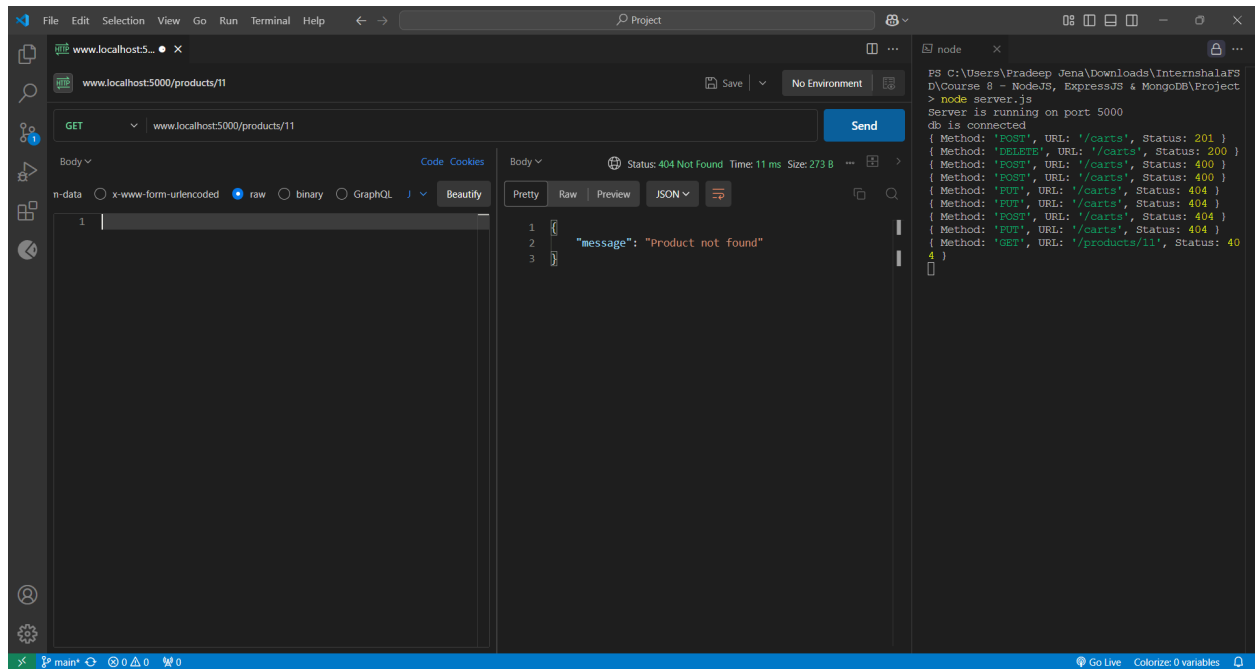
In case the product quantity is set to 0, it will automatically get deleted from the cart



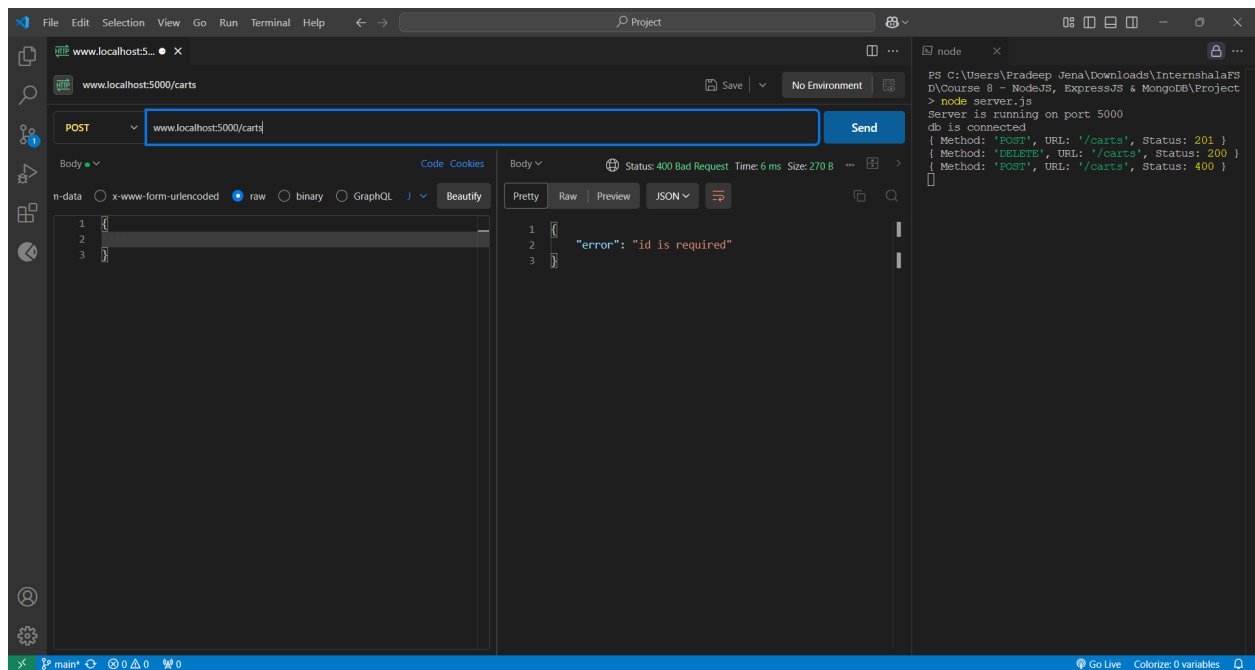
8) Method: 'DELETE' & URL: '/carts' & Status: 200 OK



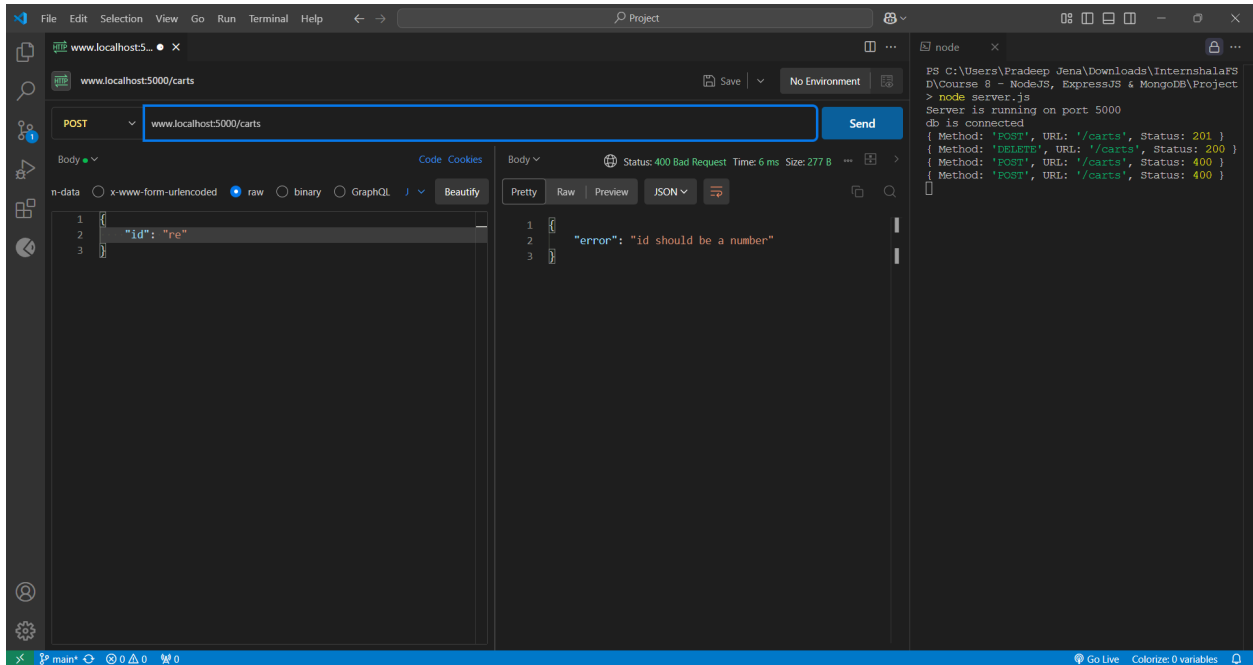
Validation:



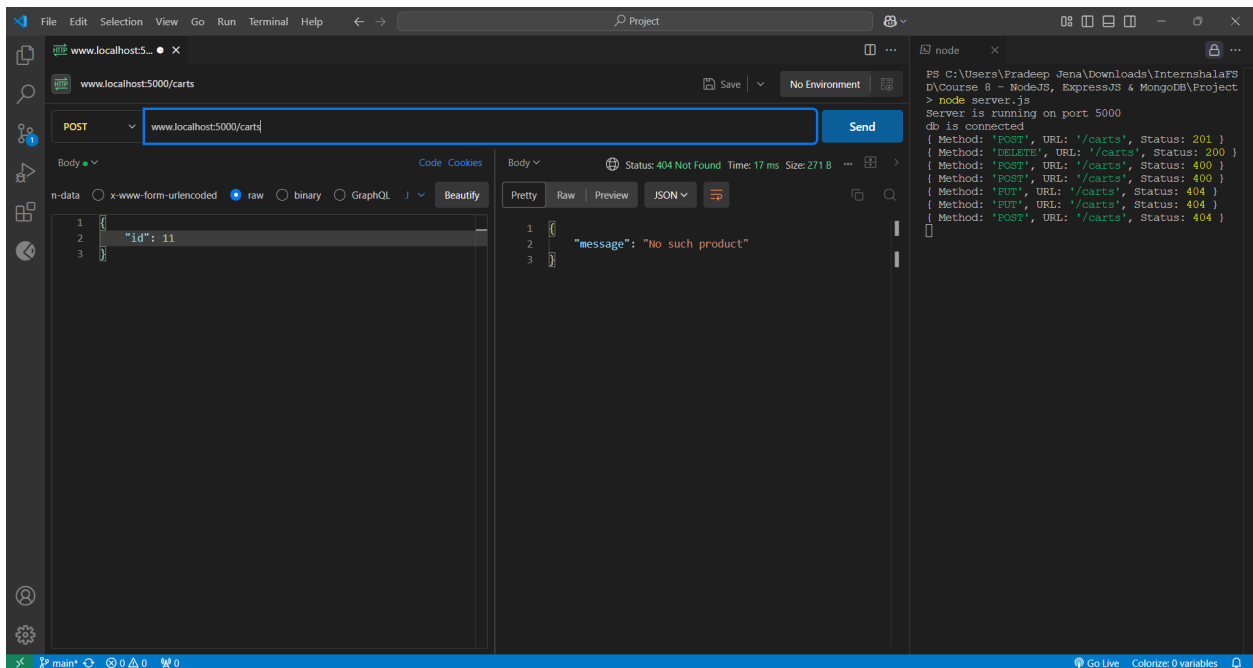
The given id of the products is not present



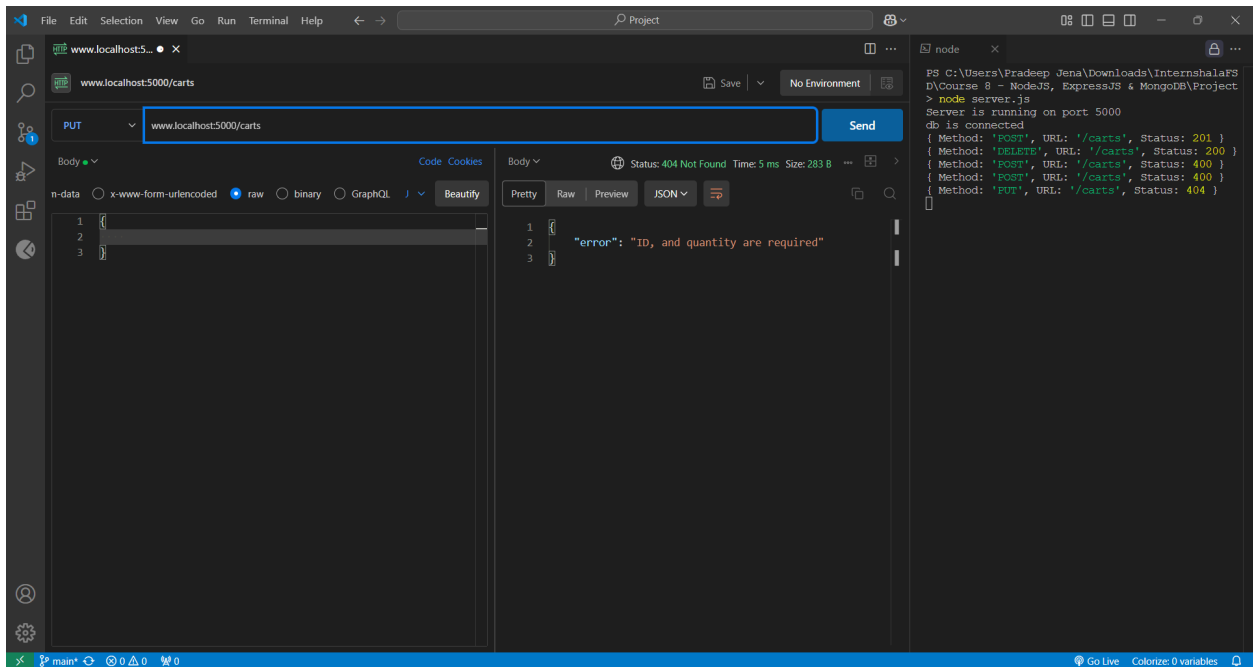
In case id is not provided for POST method.



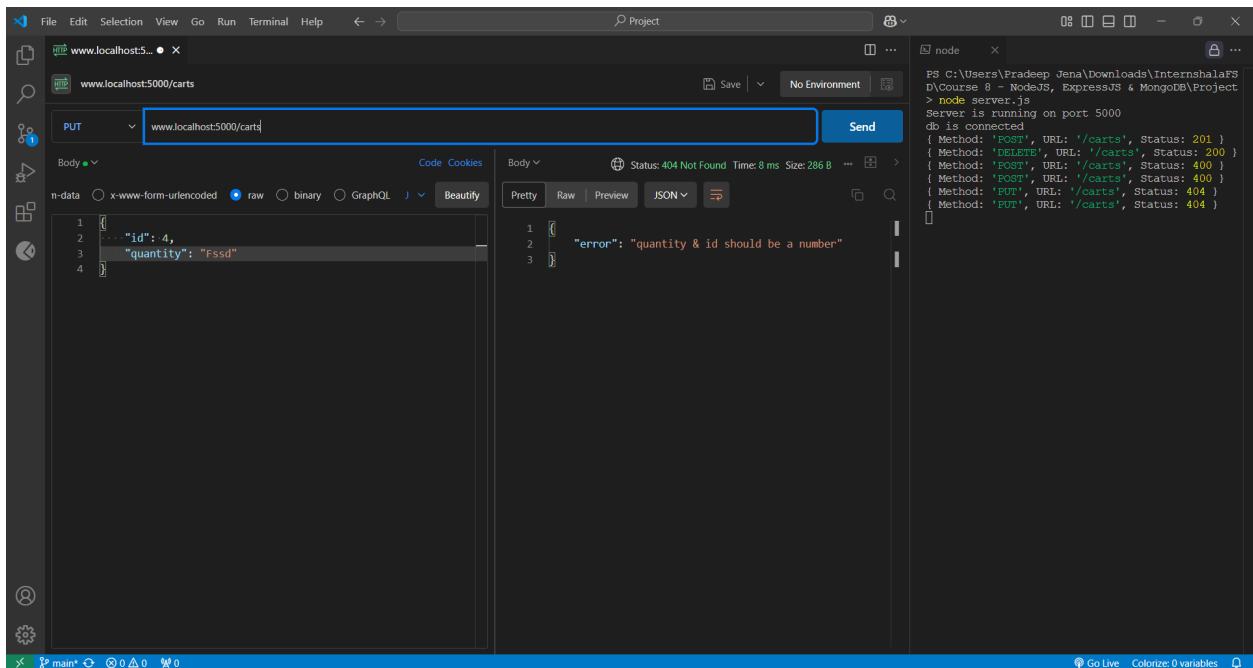
In case the given id is not a number for POST method..



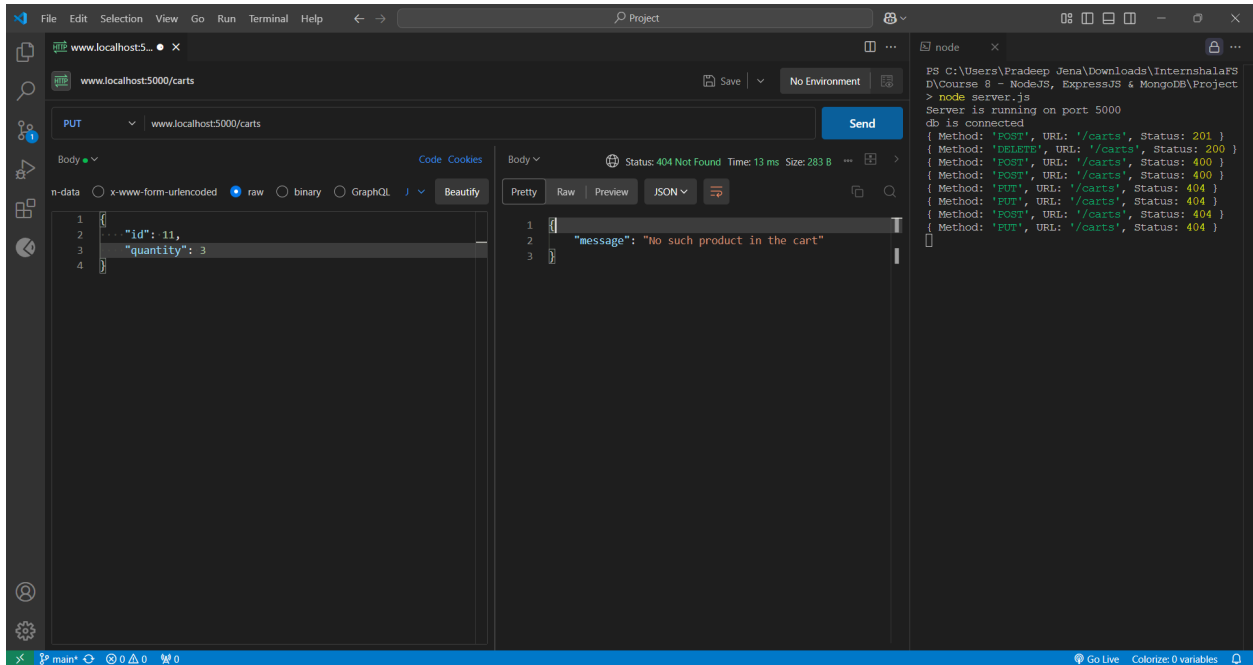
In case, the id given is not present.



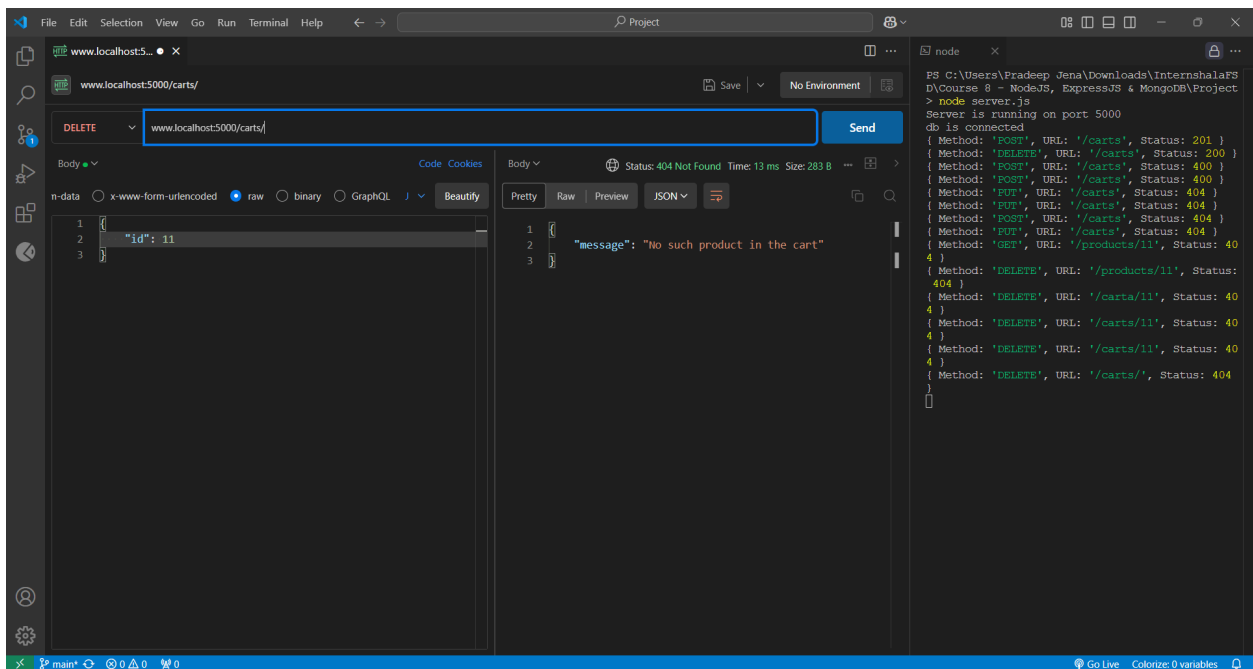
If Id & Quantity is not provided for the PUT method.



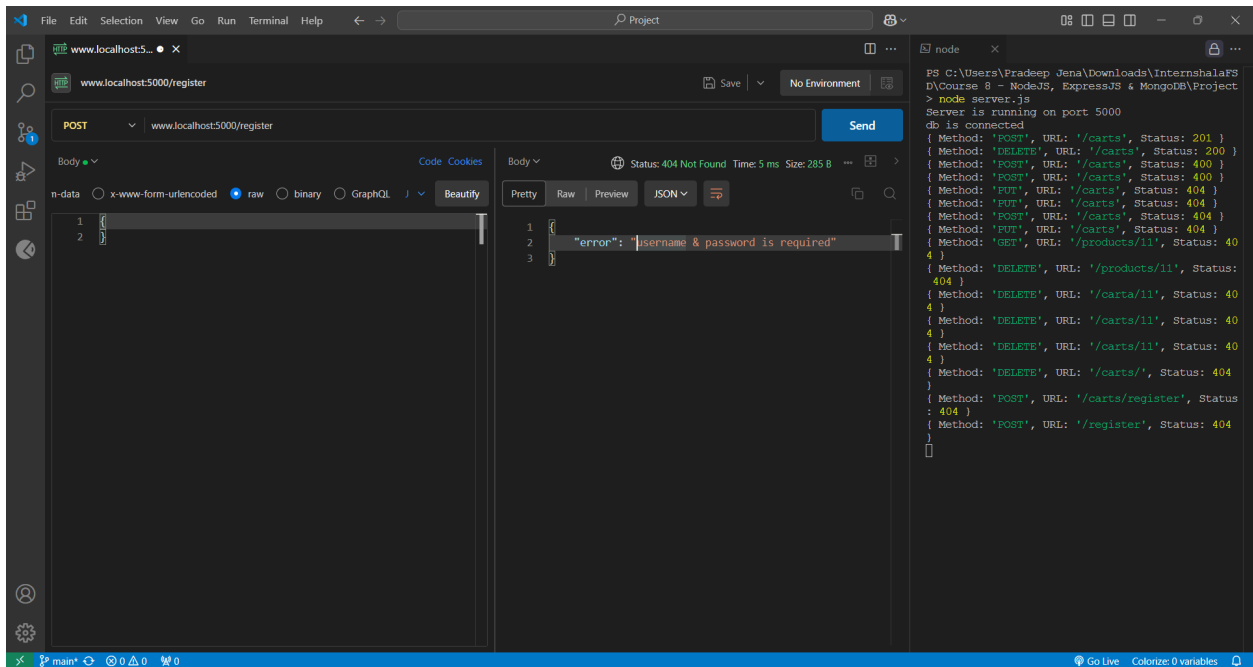
In case the given id & quantity are not numbers for PUT method.



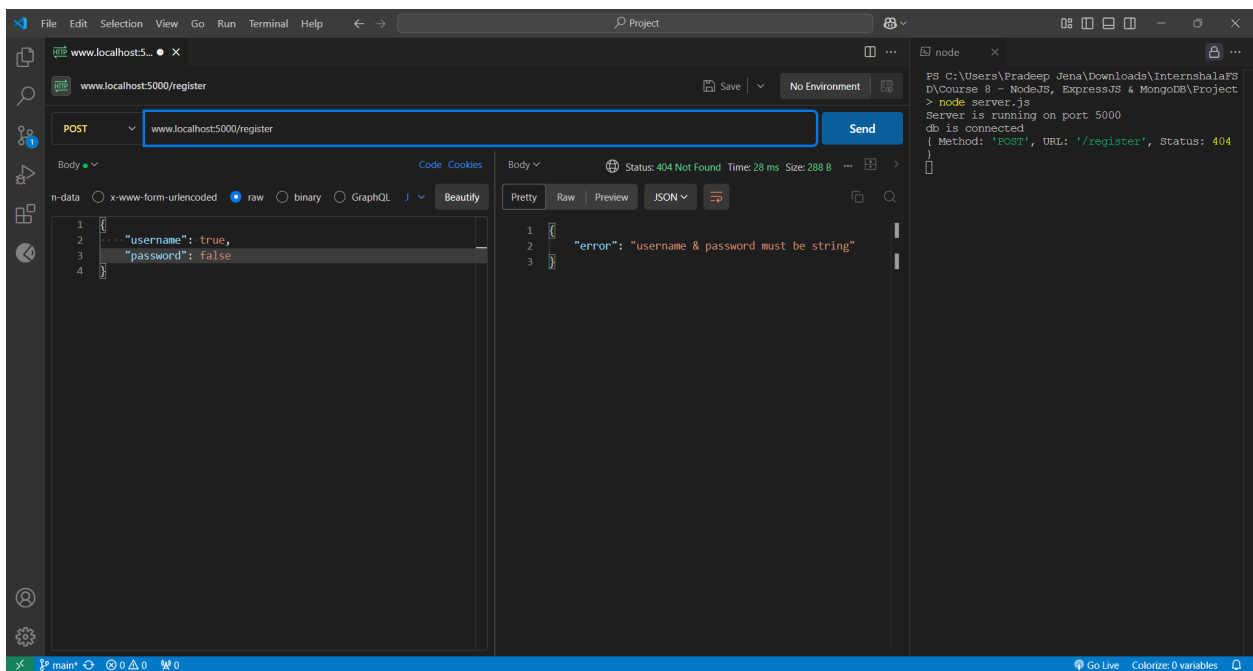
The given id of the product is not present in the cart.



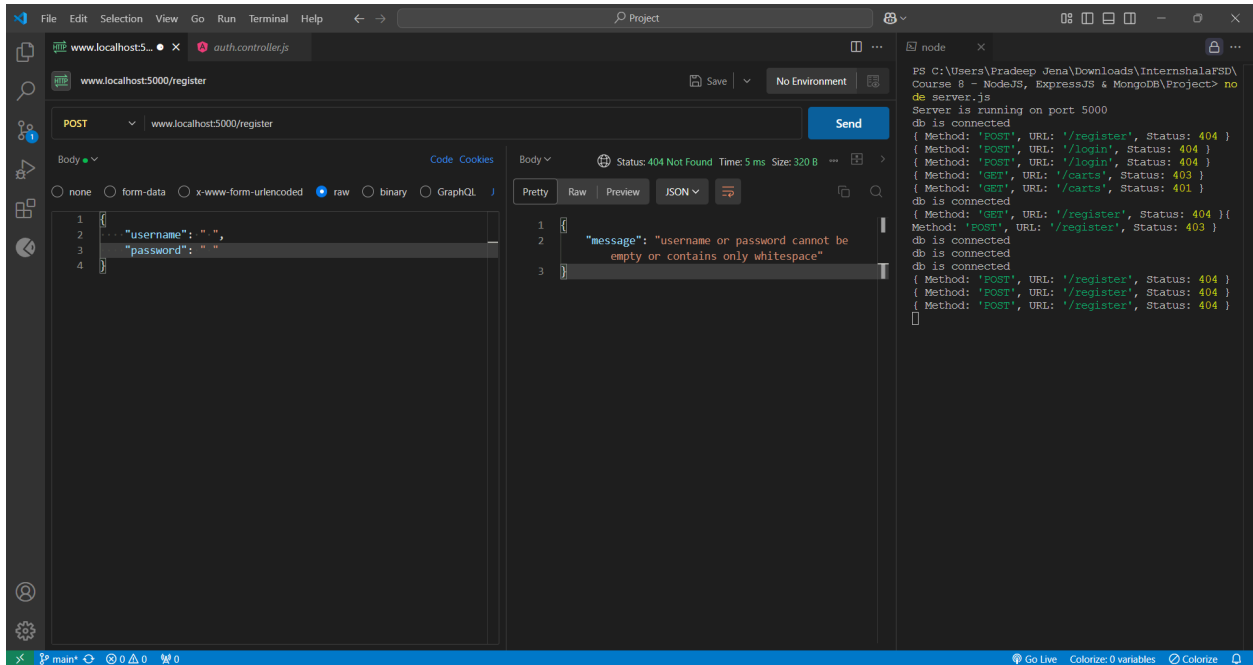
The id you want to delete is not present in the cart.



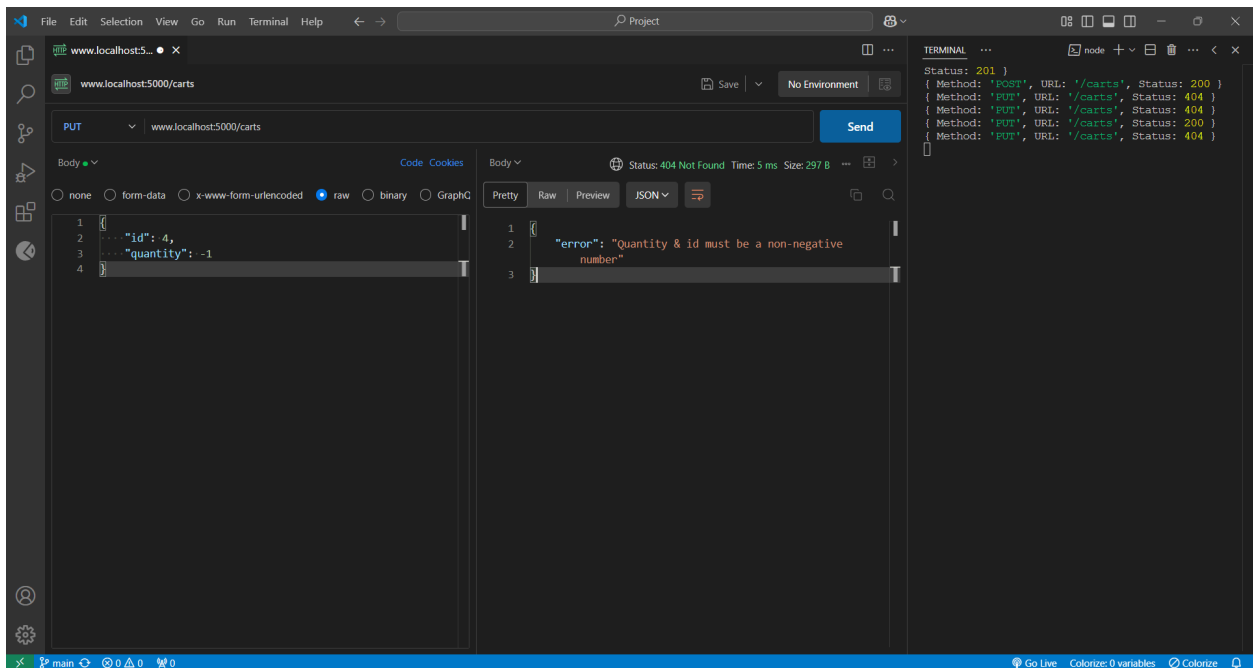
Username and password is required to register a new user in register/login POST method.



Username & password need to be string in register/login POST method.

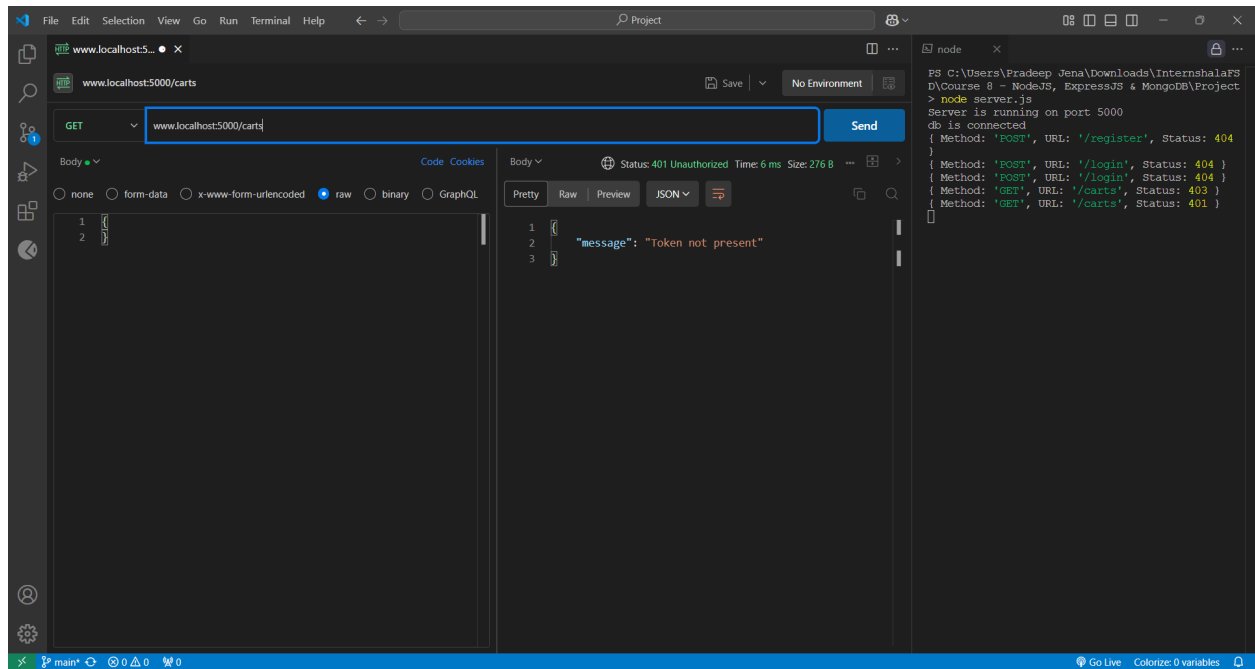


If you try to register/login whitespace.

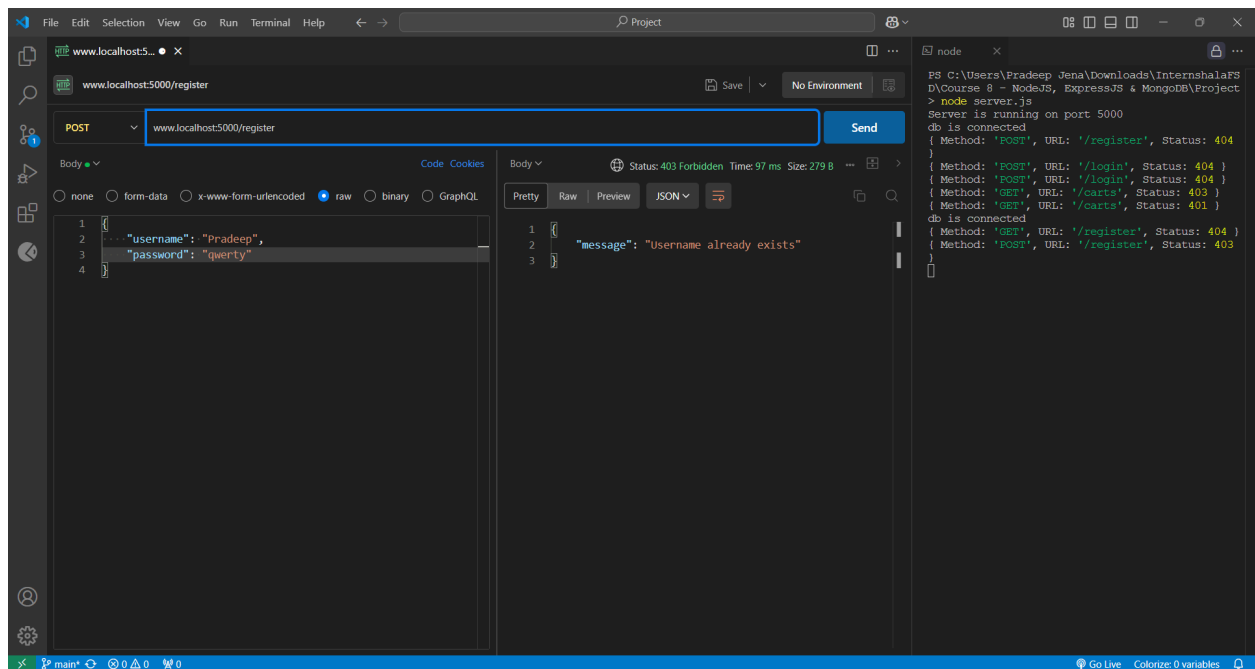


In case trying to access a product using -ve number

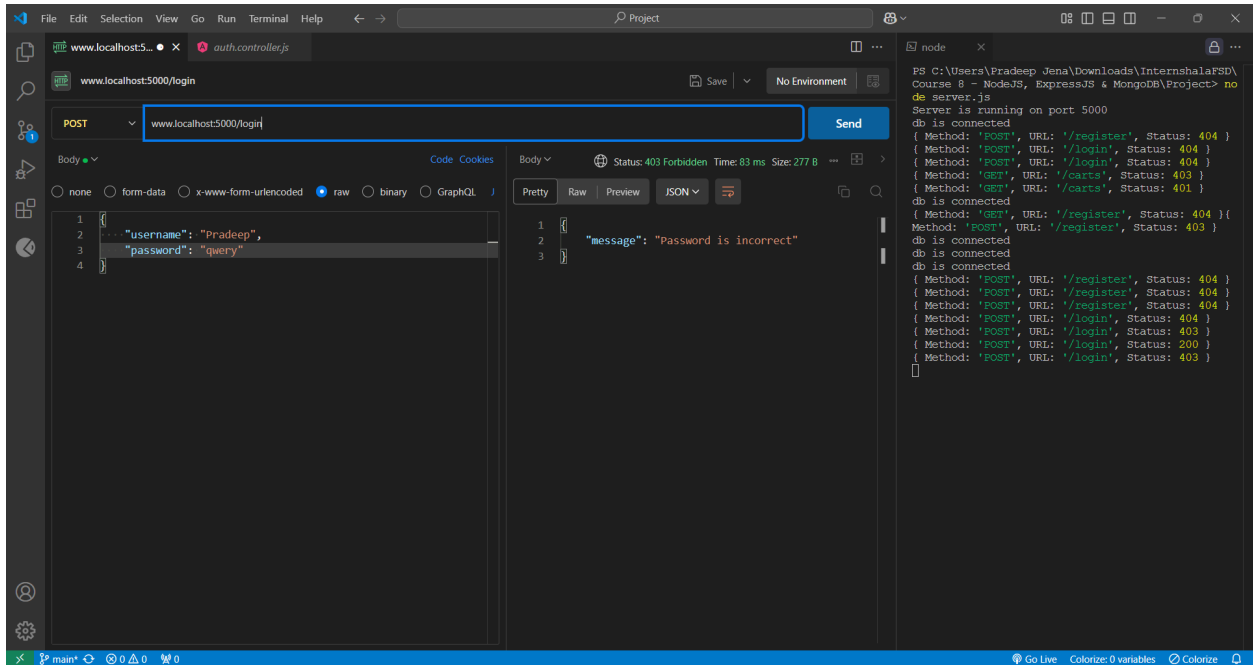
Authentication:



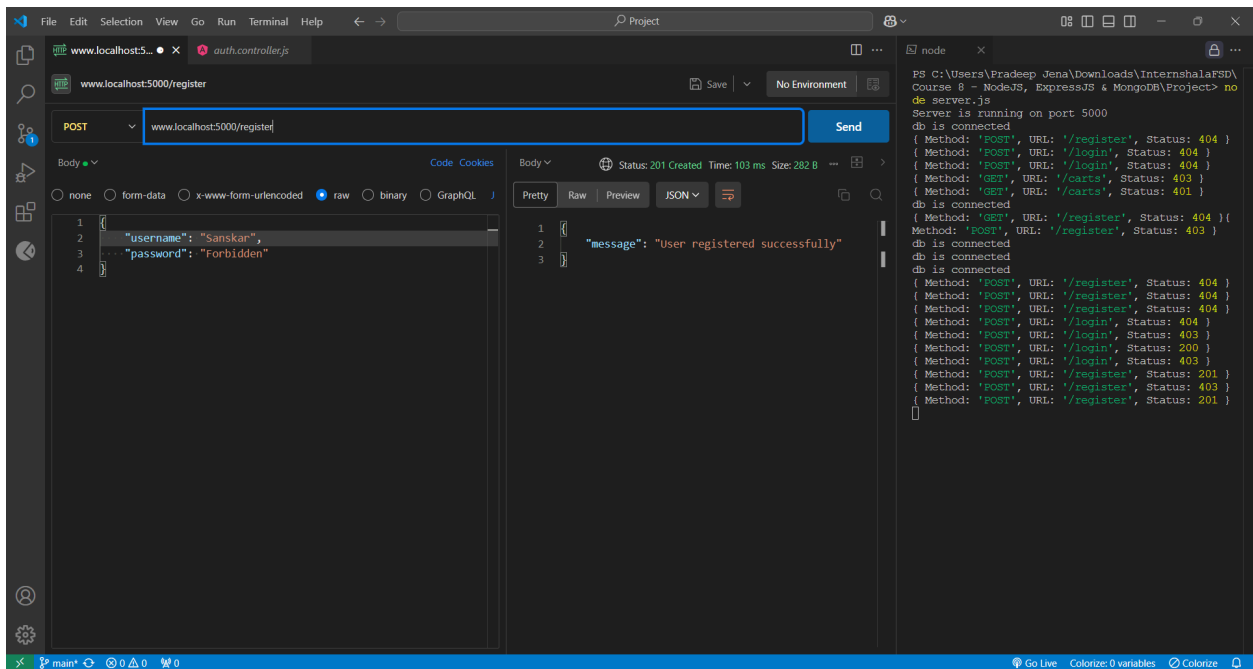
Won't be able to access the cart items until provided by JWT token.



If you try to register a username which is already there.



Trying to login with an incorrect password.



Registering a new user