ShoppyGlobe RESTful API - Test Case Documentation

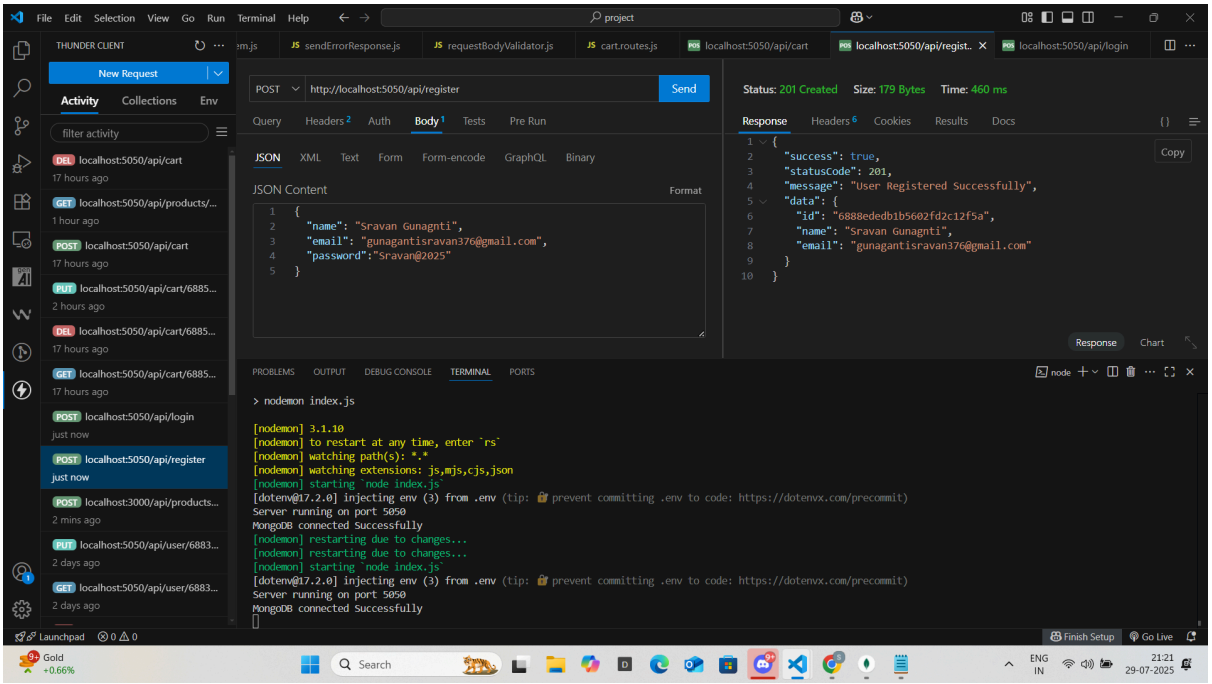
Overview

This document includes all possible test cases for the REST API routes developed for the ShoppyGlobe backend project. The test cases are organized based on the route and functionality. Each section includes the HTTP method, endpoint, description, request body (if applicable), expected status, and expected response message.

User Authentication

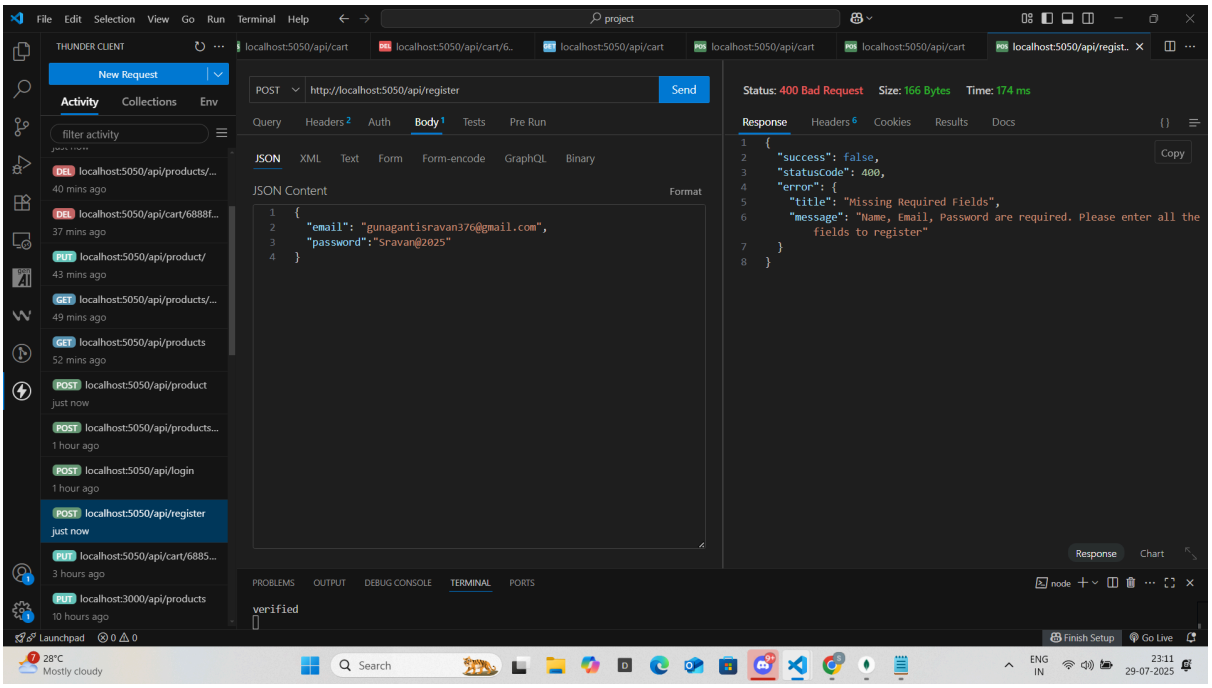
1. Register - Successful

- **POST** `/api/register`
- **Description**: Registers a new user
- **Expected**: `201 Created`, JWT token and user data returned



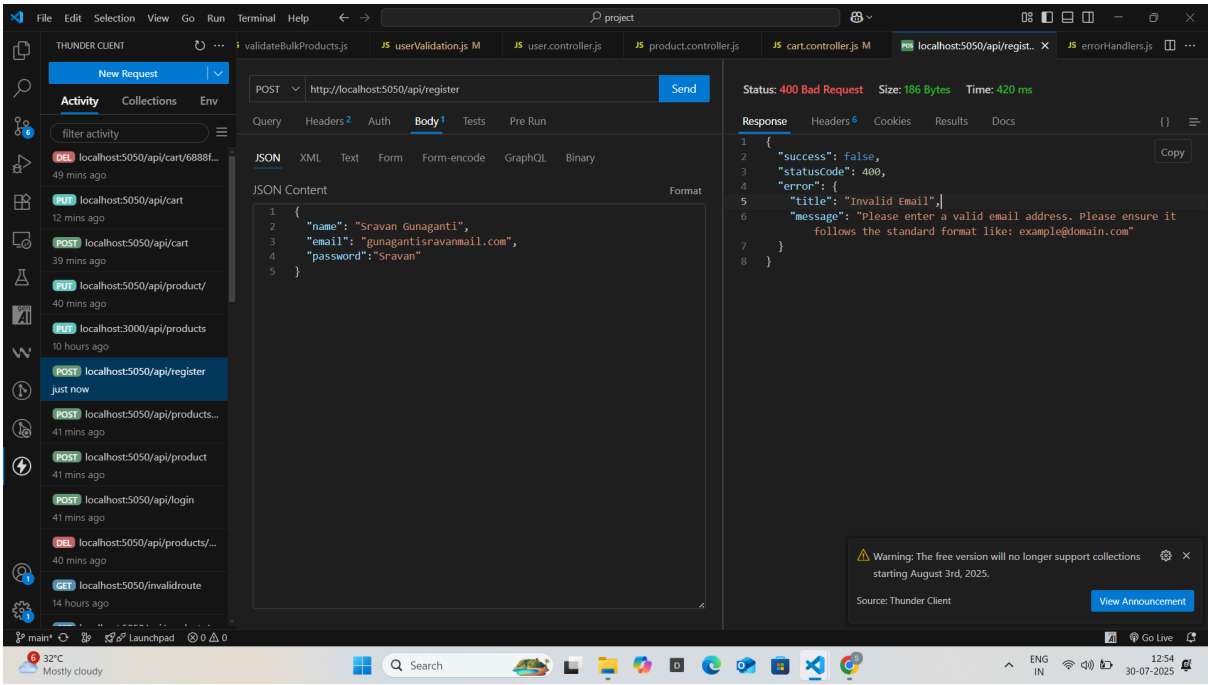
2. Register - Missing Fields

- **Expected**: `400 Bad Request`, "Missing Required Fields"



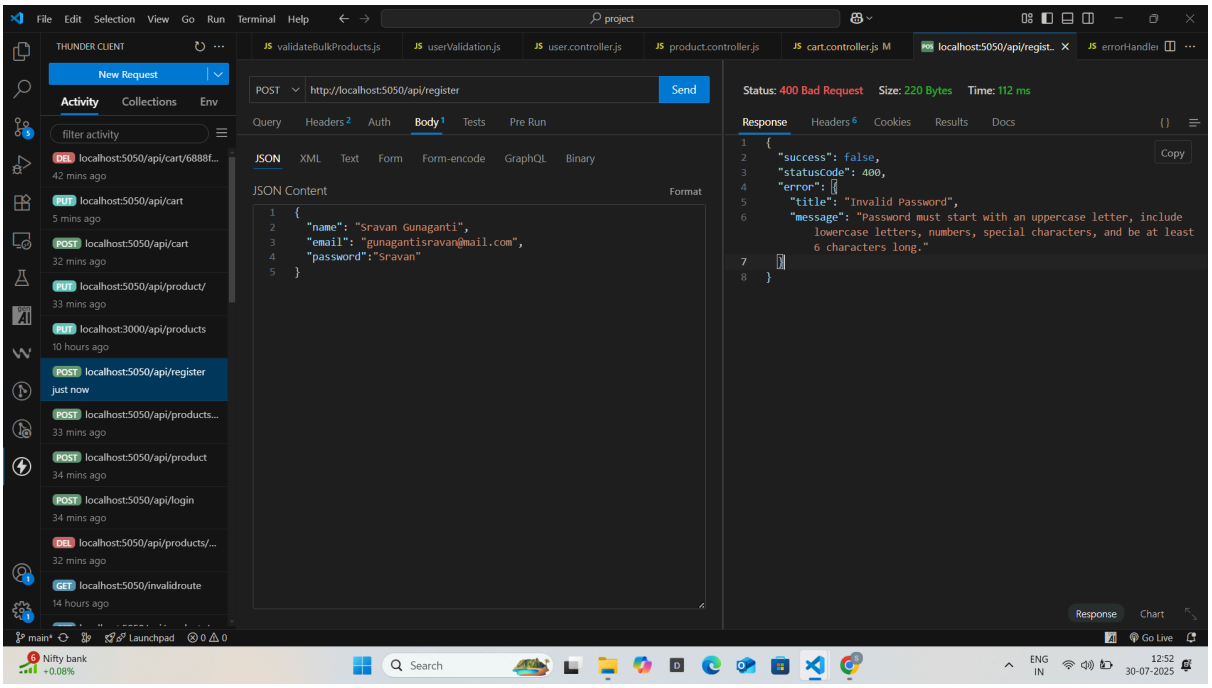
3. Register - Invalid Email

- **Expected**: `400 Bad Request`, "Invalid Email"



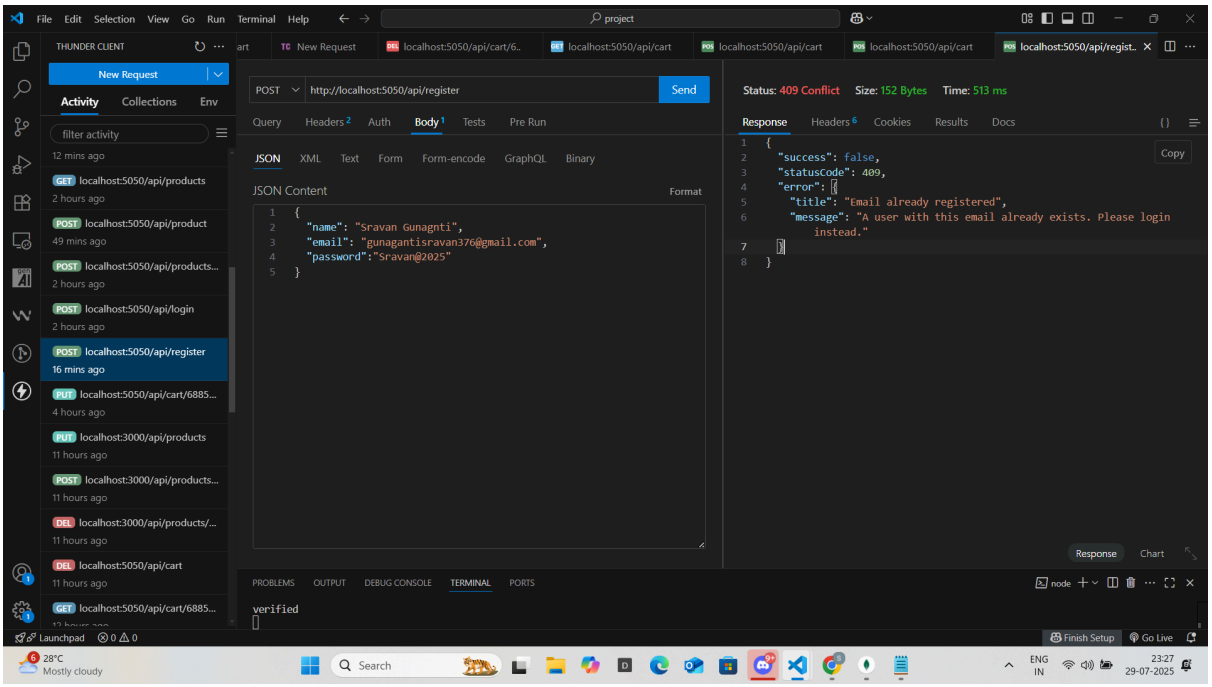
4. Register - Weak Password

- **Expected**: `400 Bad Request`, "Invalid Password"



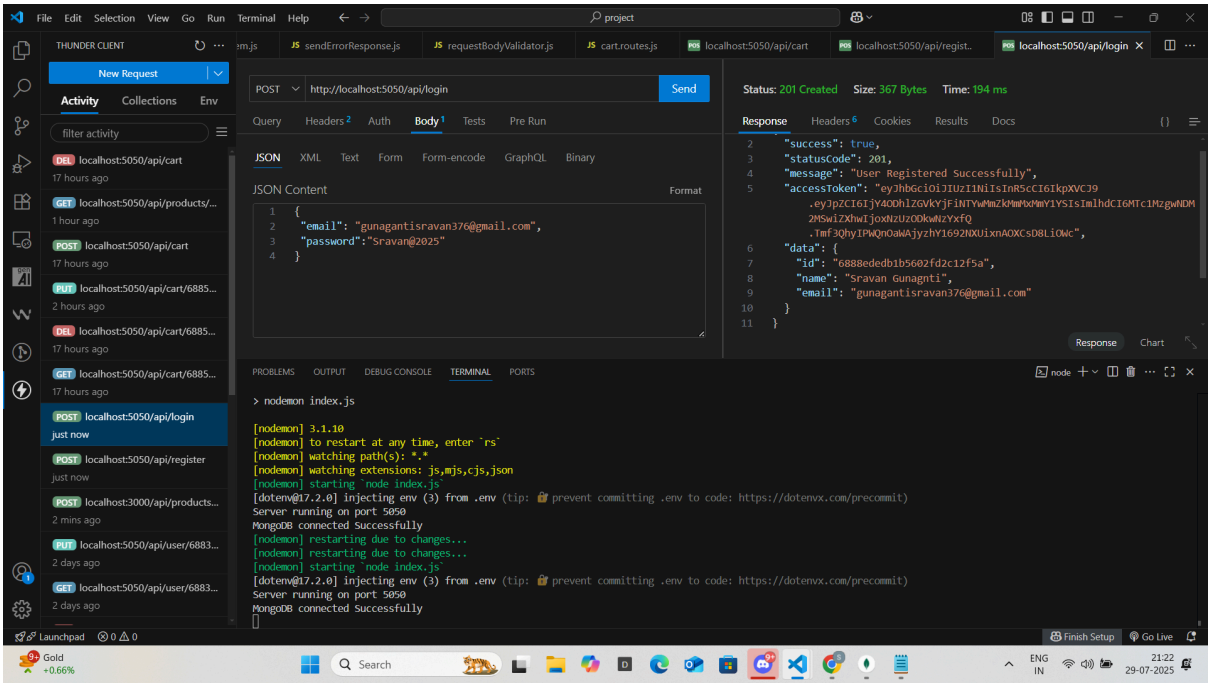
5. Register - Email Already Exists

- **Expected**: `409 Conflict`, "Email already registered"



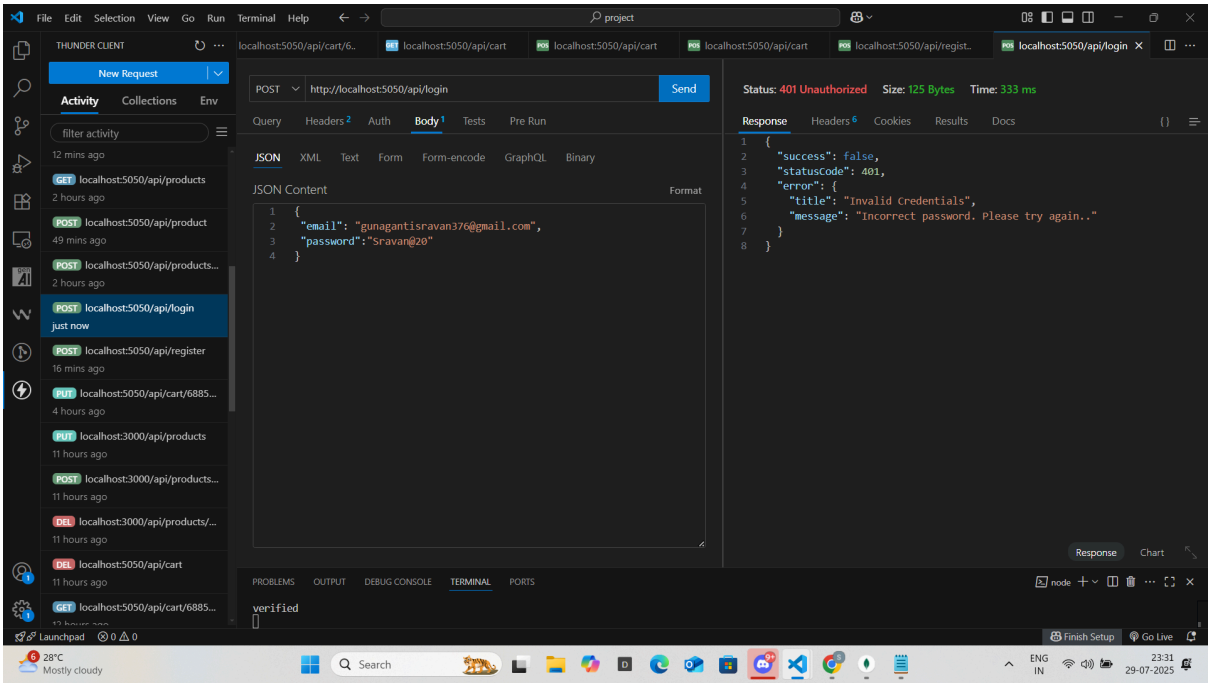
6. Login - Successful

- **POST** `/api/login`
- **Expected**: `200 OK`, data and JWT returned



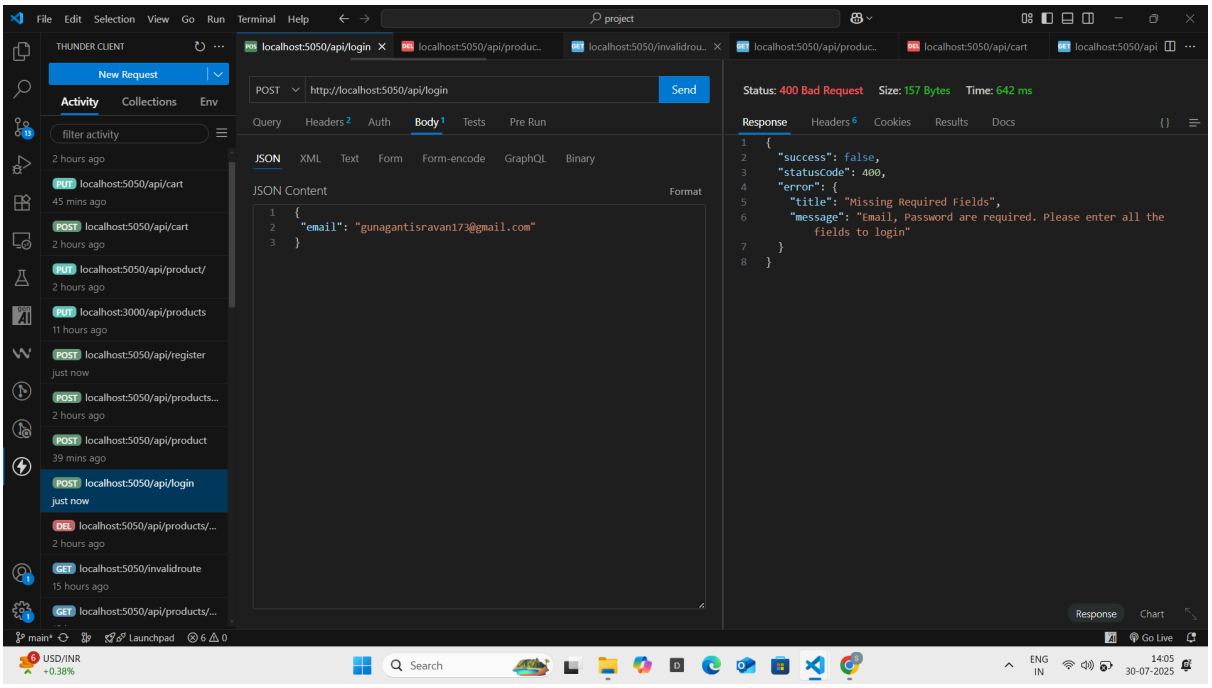
7. Login - Invalid Credentials

- **Expected**: `401 Unauthorized`, "Invalid credentials"



8. Login - Missing Fields

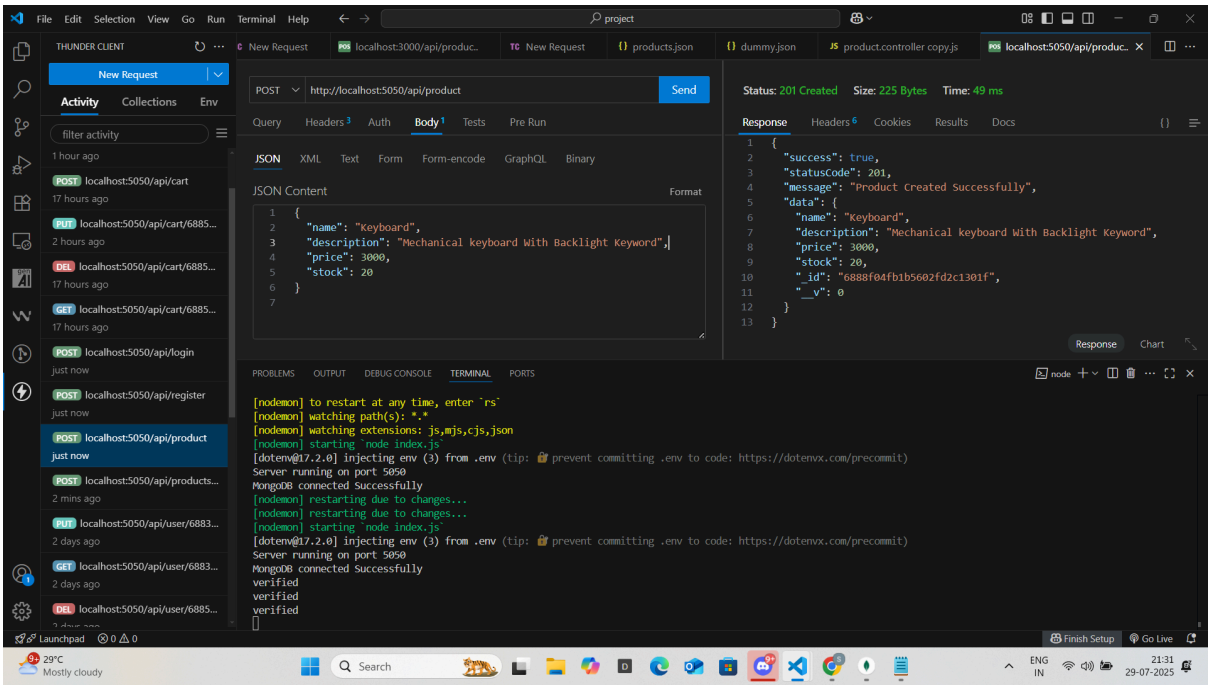
- **Expected**: `400 Bad Request`, "Missing Required Fields"



Product Management

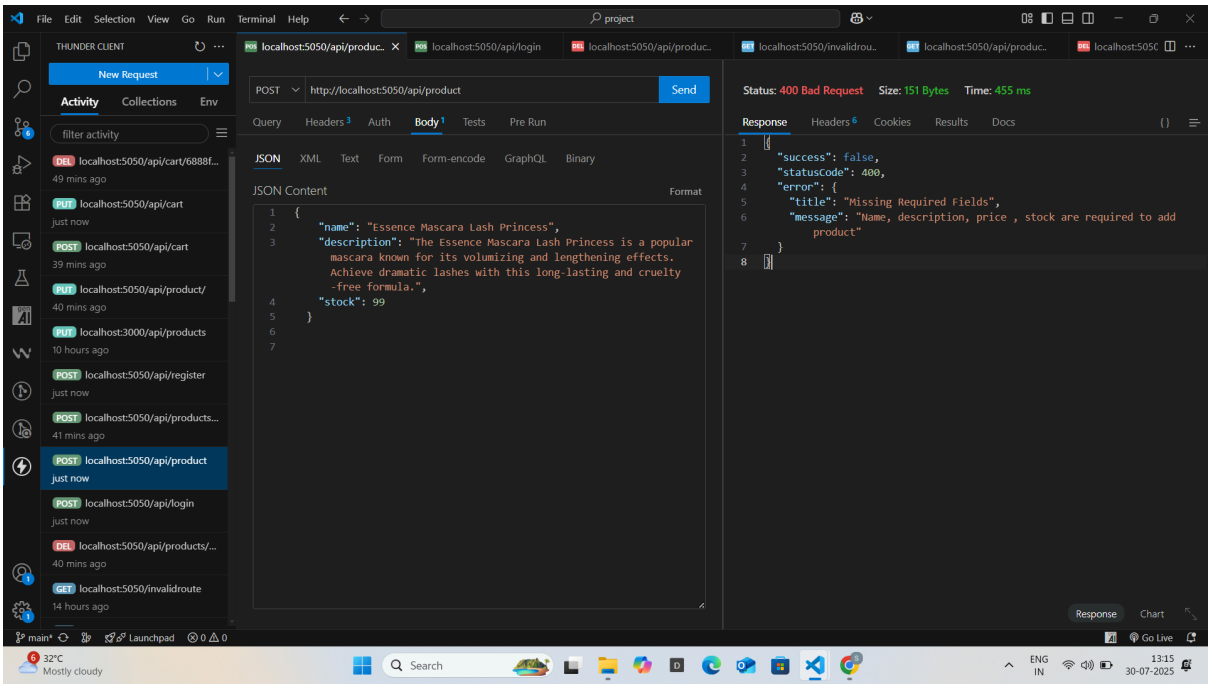
9. Add Product - Successful

- **POST** `/api/product`
- **Headers**: JWT required
- **Expected**: `201 Created`, Product data returned



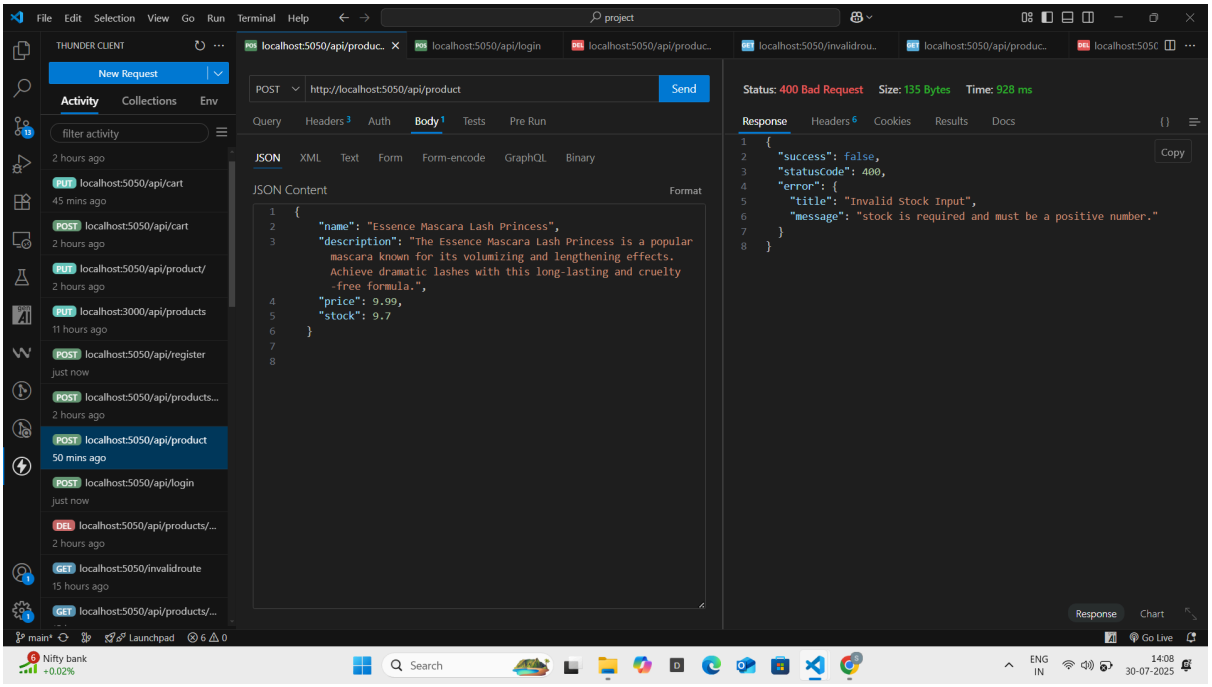
10. Add Product - Missing Fields

- **Expected**: `400 Bad Request`, "Missing Required Fields"



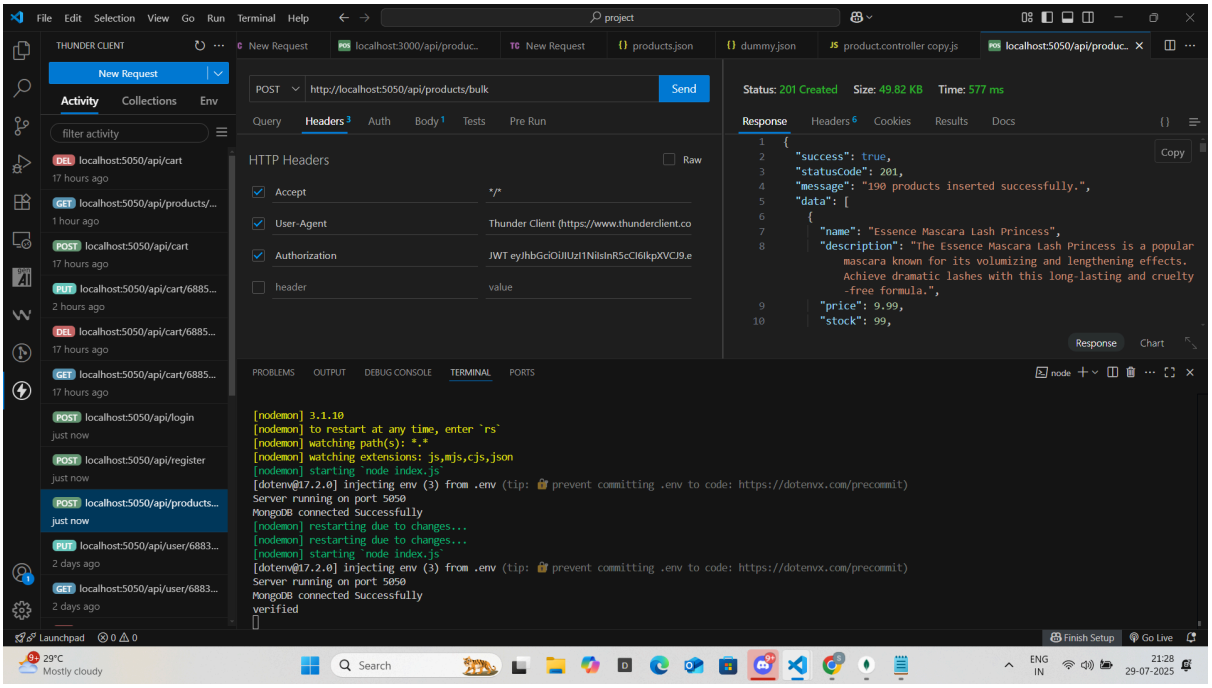
11. Add Product - Invalid Stock Type

- **Expected**: `400 Bad Request`, "Invalid Stock Input"



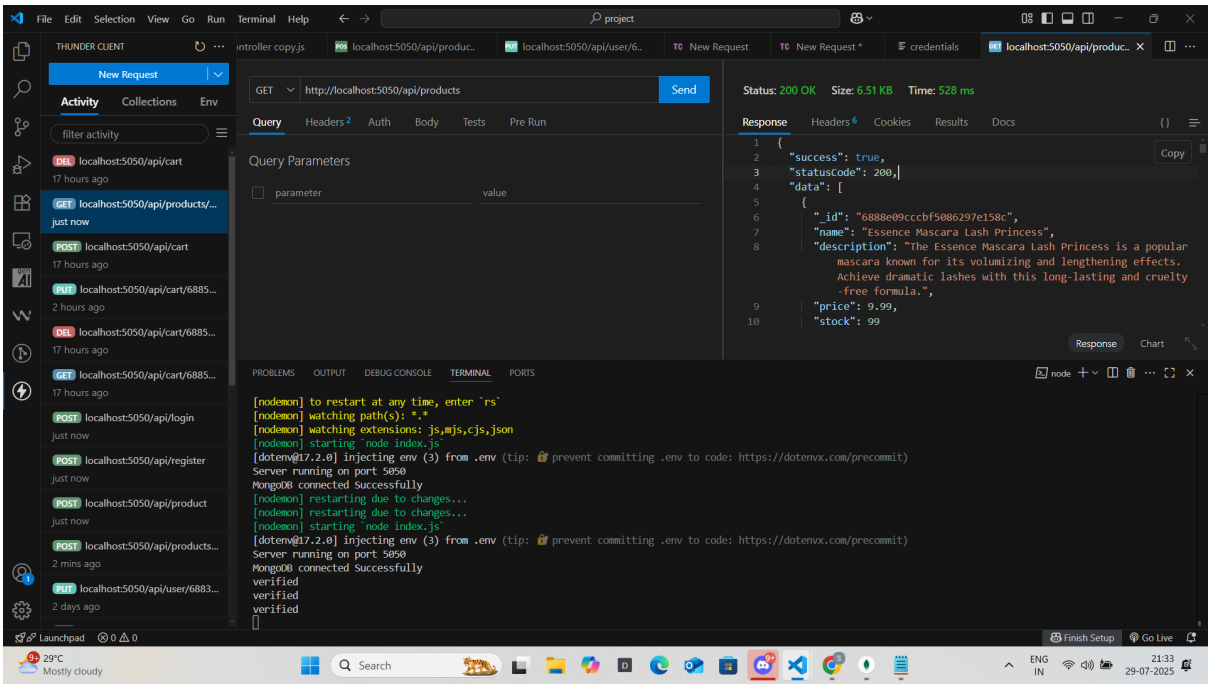
12. Bulk Product Insert - Successful

- **POST** `/api/products/bulk`
- **Headers**: JWT required
- **Request Body**: Valid array of products
- **Expected**: `201 Created`, products inserted



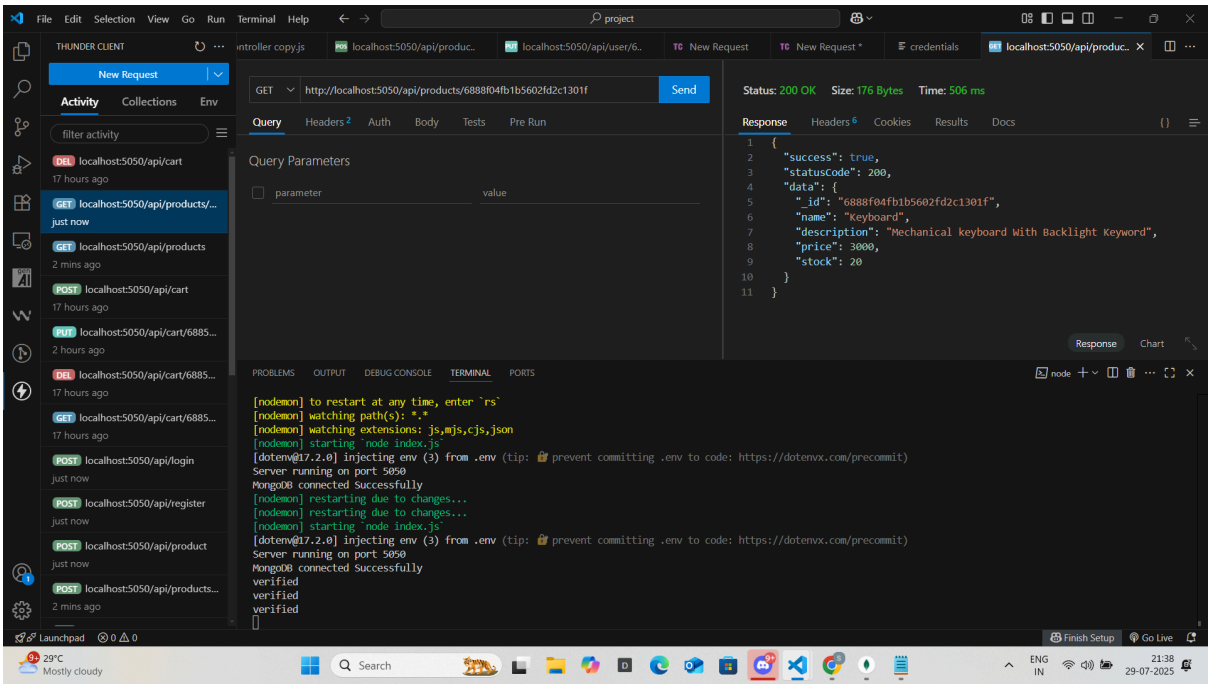
13. Get All Products

- **GET** `/api/products`
- **Expected**: `200 OK`, product array returned



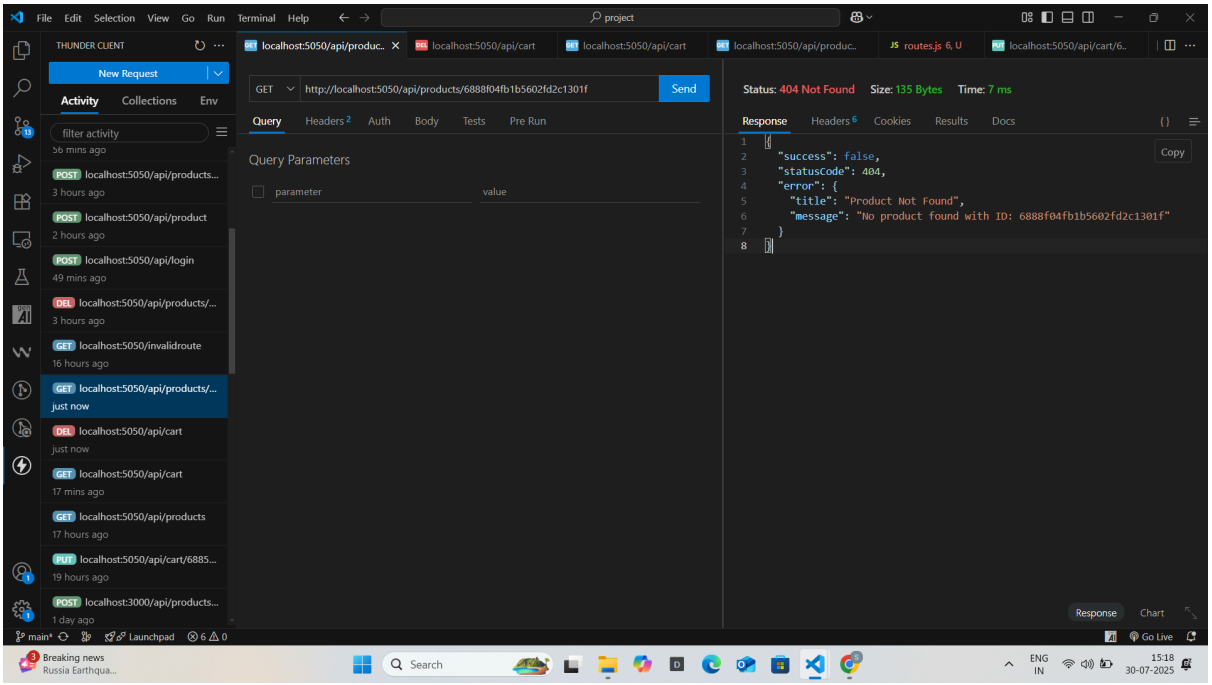
14. Get Product by ID - Valid ID

- **GET** `/api/products/:id`
- **Expected**: `200 OK`, product object returned



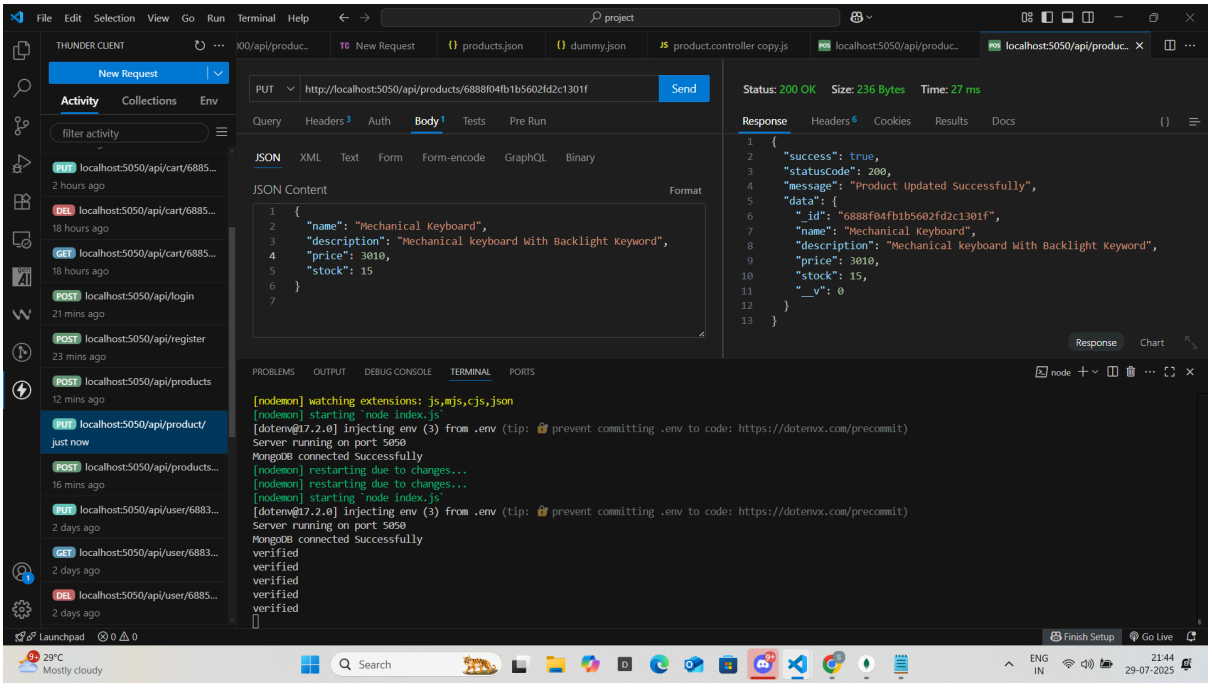
15. Get Product by ID - Non existing product

- **Expected**: `404 Not Found`, "Product Not Found"



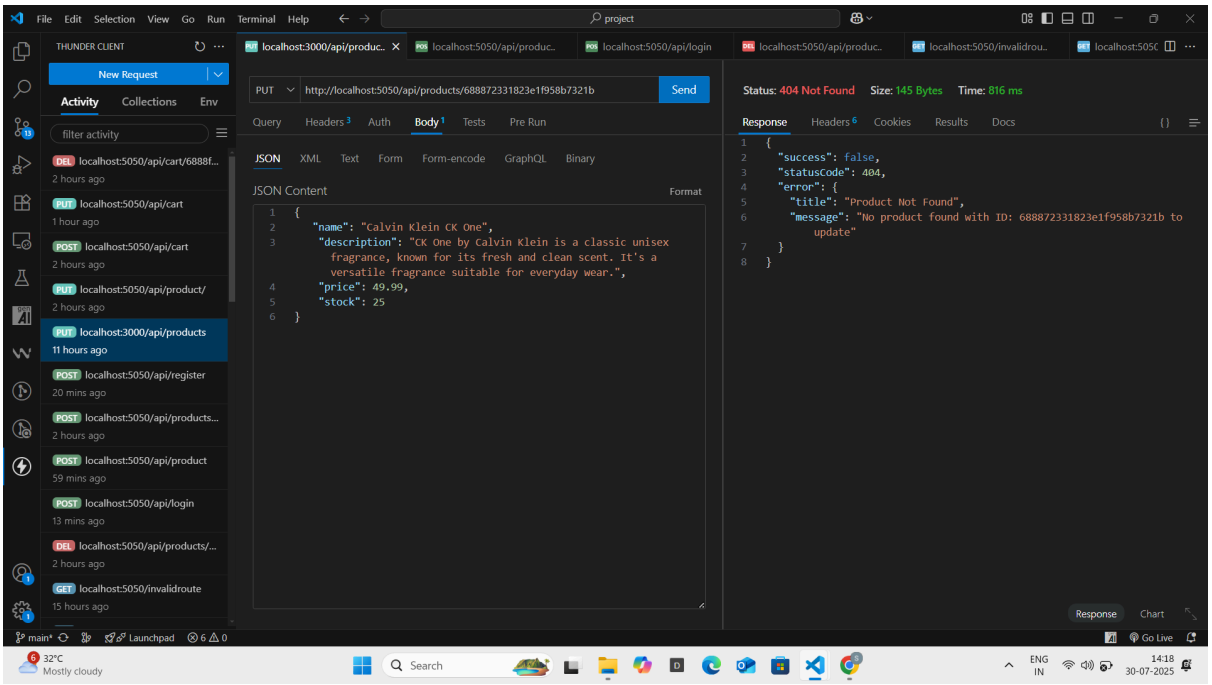
16. Update Product - Valid Update

- **PUT** `/api/products/:id`
- **Headers**: JWT required
- **Expected**: `200 OK`, updated product



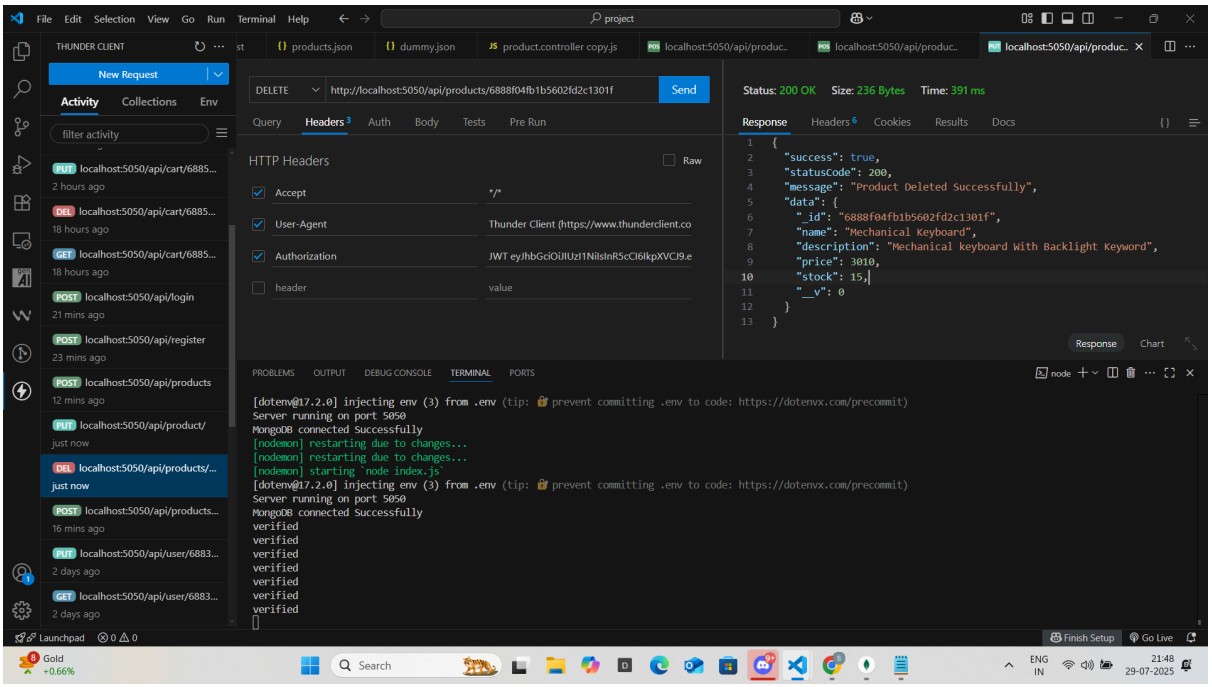
17. Update Product - Not Found

- **Expected**: `404 Not Found`, "Product Not Found"



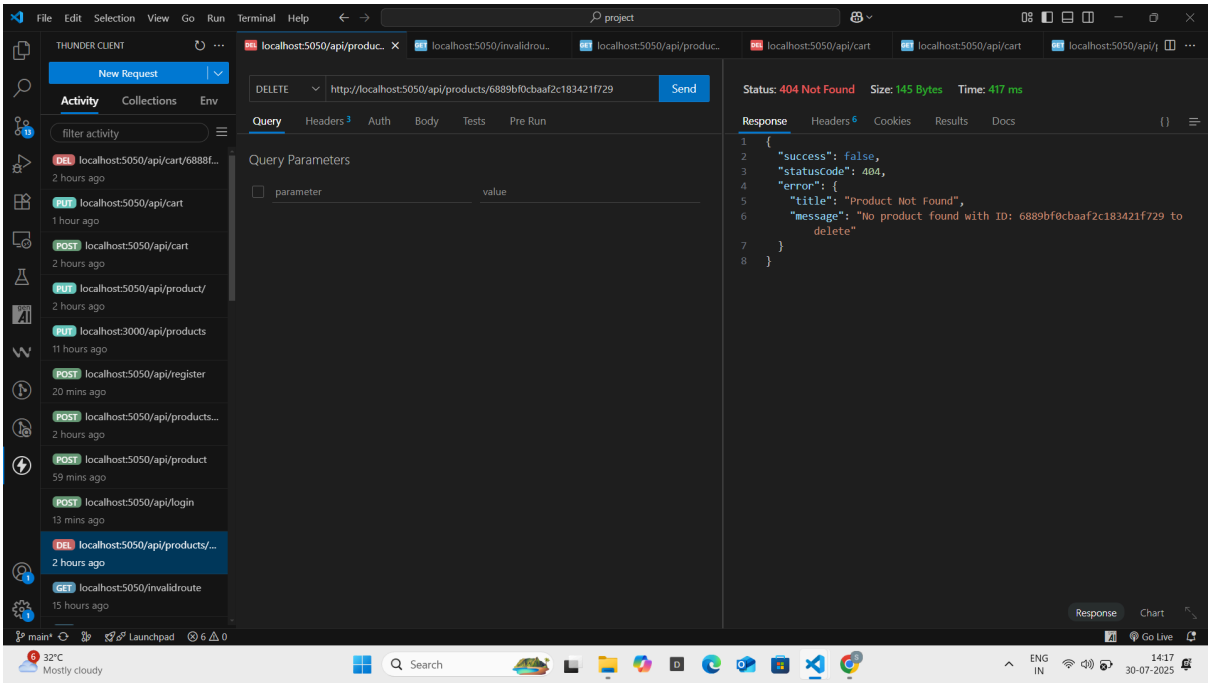
18. Delete Product - Valid

- **DELETE** `/api/products/:id`
- **Expected**: `200 OK`, deleted message



19. Delete Product - Not Found

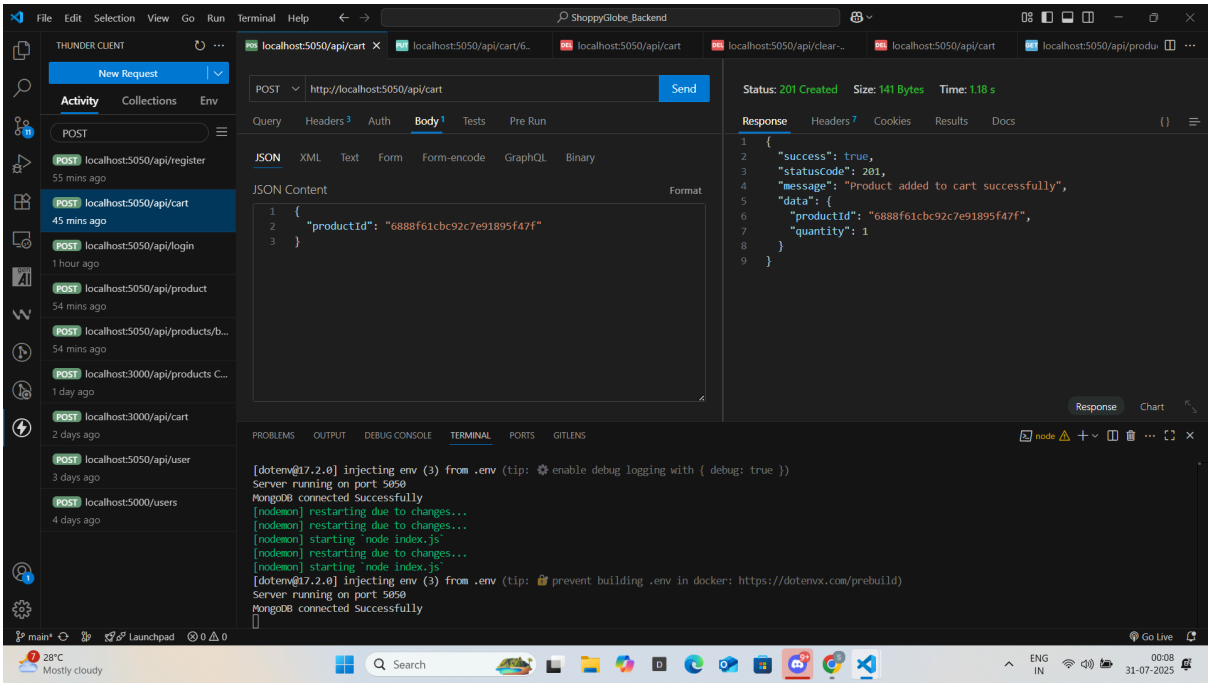
- **Expected**: `404 Not Found`, "Product Not Found"



Cart Management

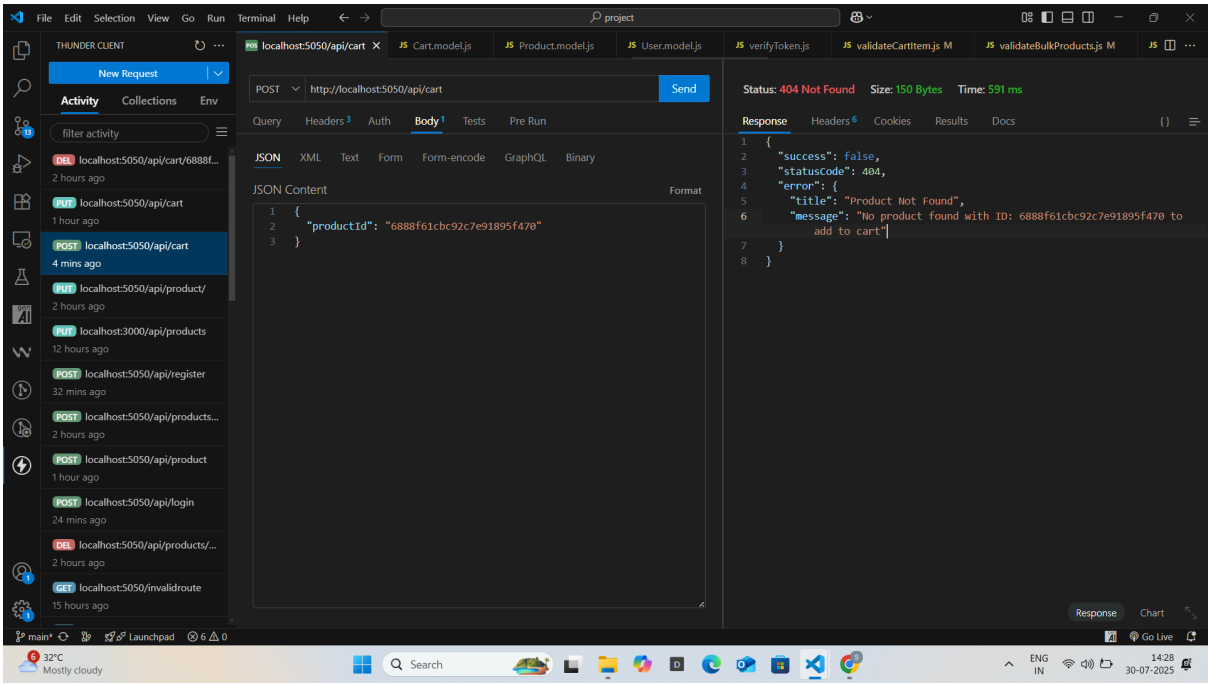
20. Add to Cart - New Item

- **POST** `/api/cart`
- **Headers**: JWT required
- **Expected**: `201 OK`, product added to cart



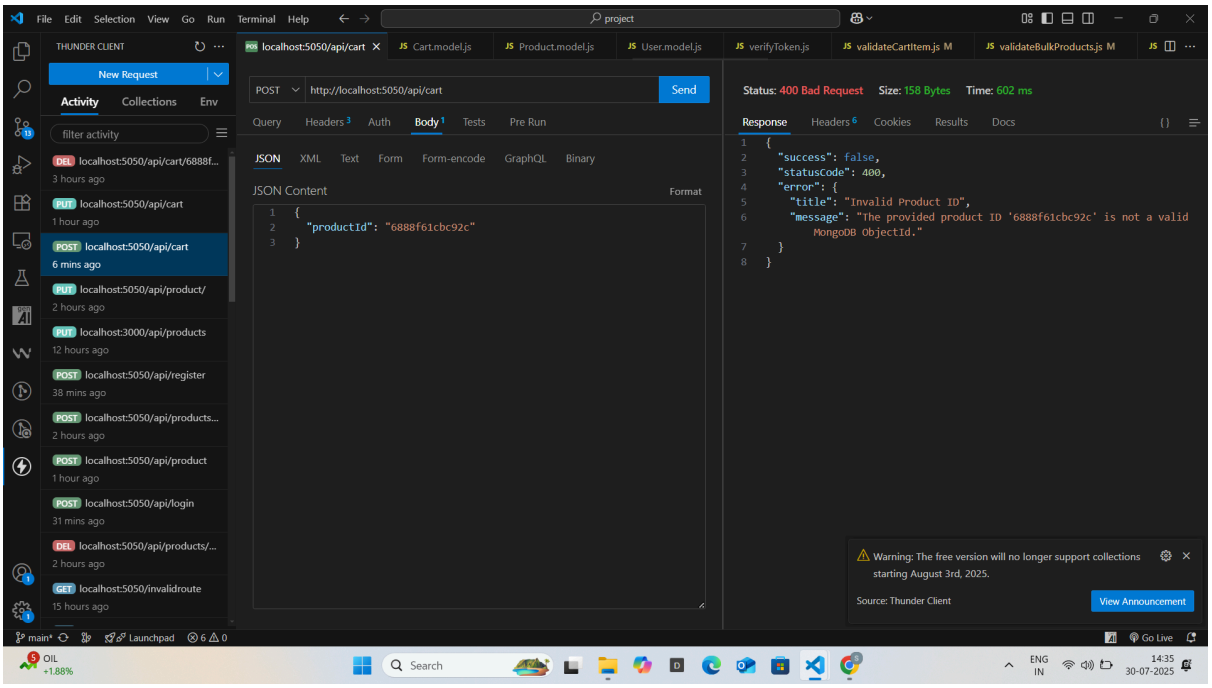
21. Add to Cart - Product Not Found

- **Expected**: `404 Not Found`, "Product Not Found"



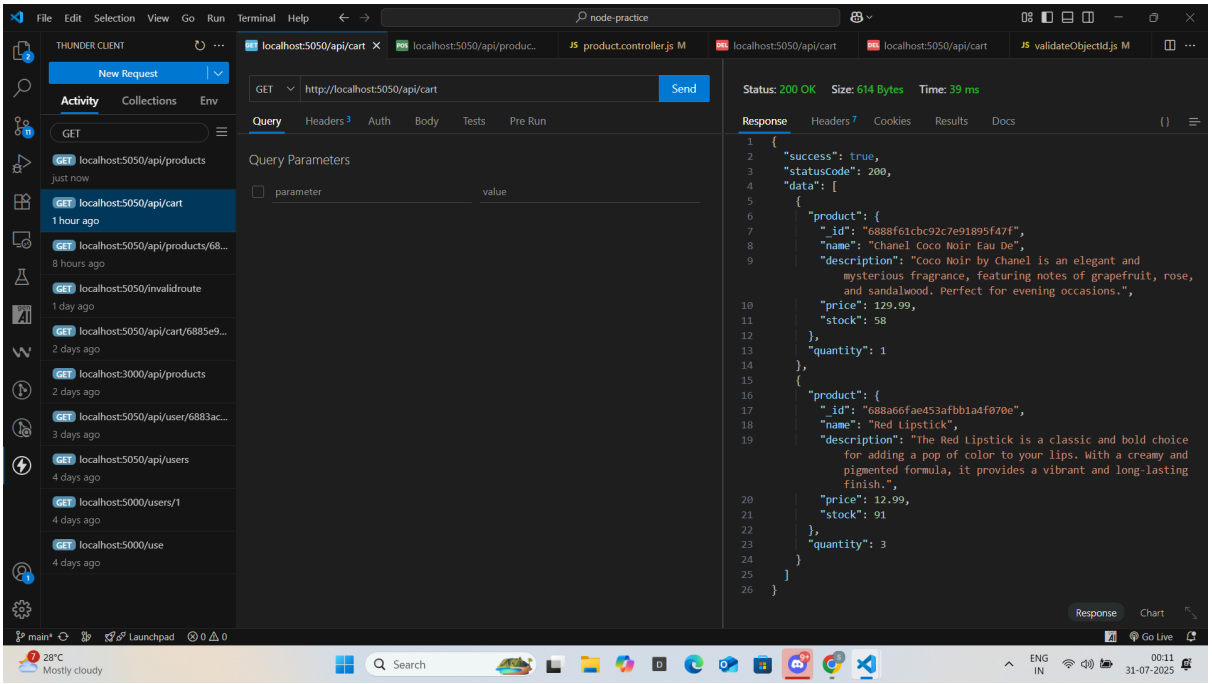
22. Add to Cart - Invalid ProductId

- **Expected**: `400 Bad Request`, "Invalid Product ID"



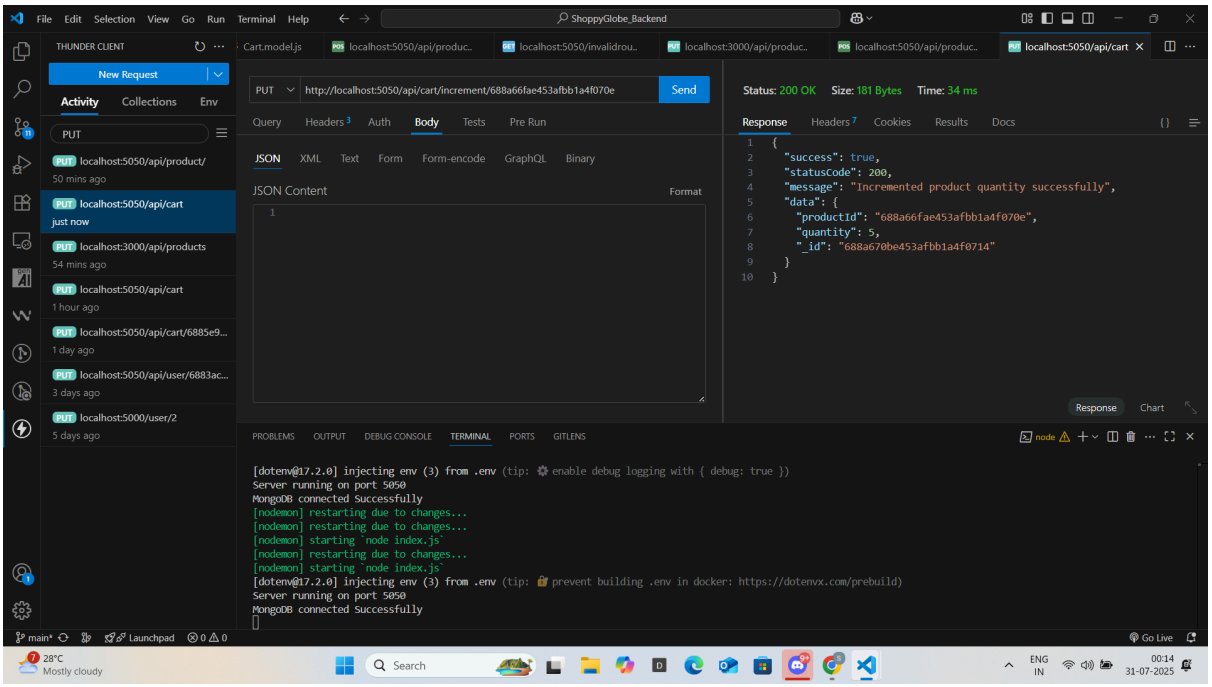
23. Get User Cart

- **GET** `/api/cart`
- **Expected**: `200 OK`, populated cart



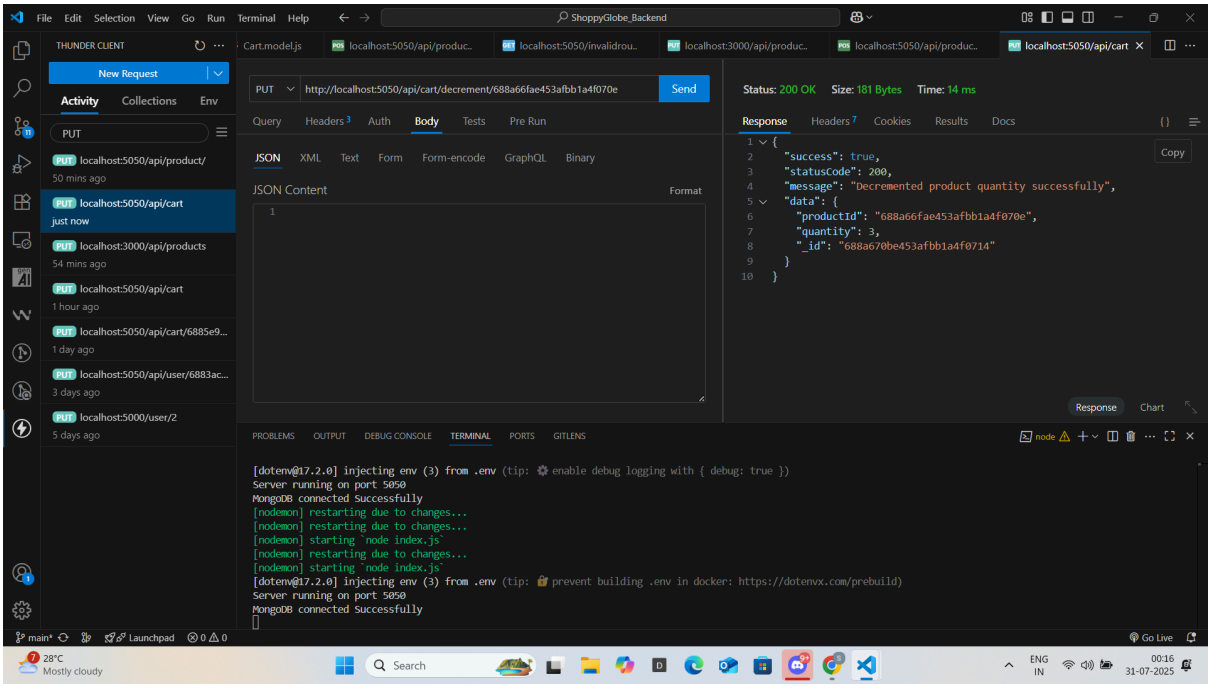
24. Increase product quantity of cart item

- **PUT** `/api/cart/increment/:productId`
- **Expected**: `200 OK`, quantity incremented successfully



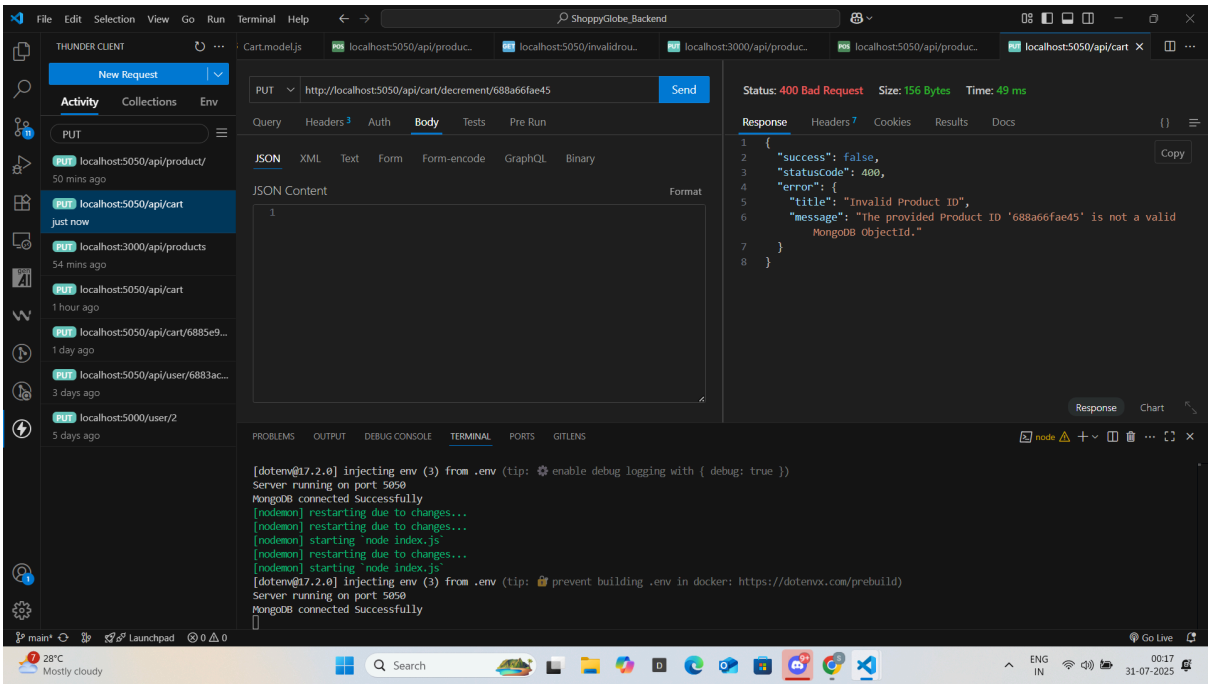
25. Decrease product quantity of cart item

- **PUT** `/api/cart/increment/:productId`
- **Expected**: `200 OK`, Quantity decremented successfully



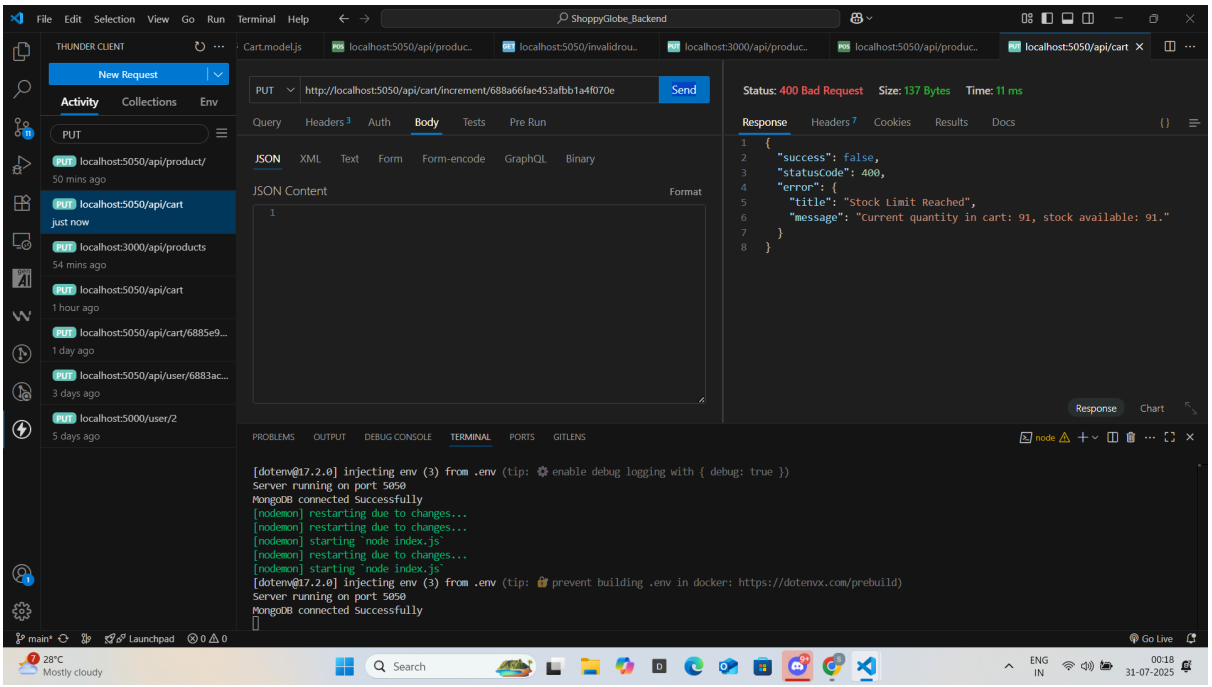
26. Update Cart Item - Invalid id

- **Expected**: `400 Bad Request`, "Invalid product id"



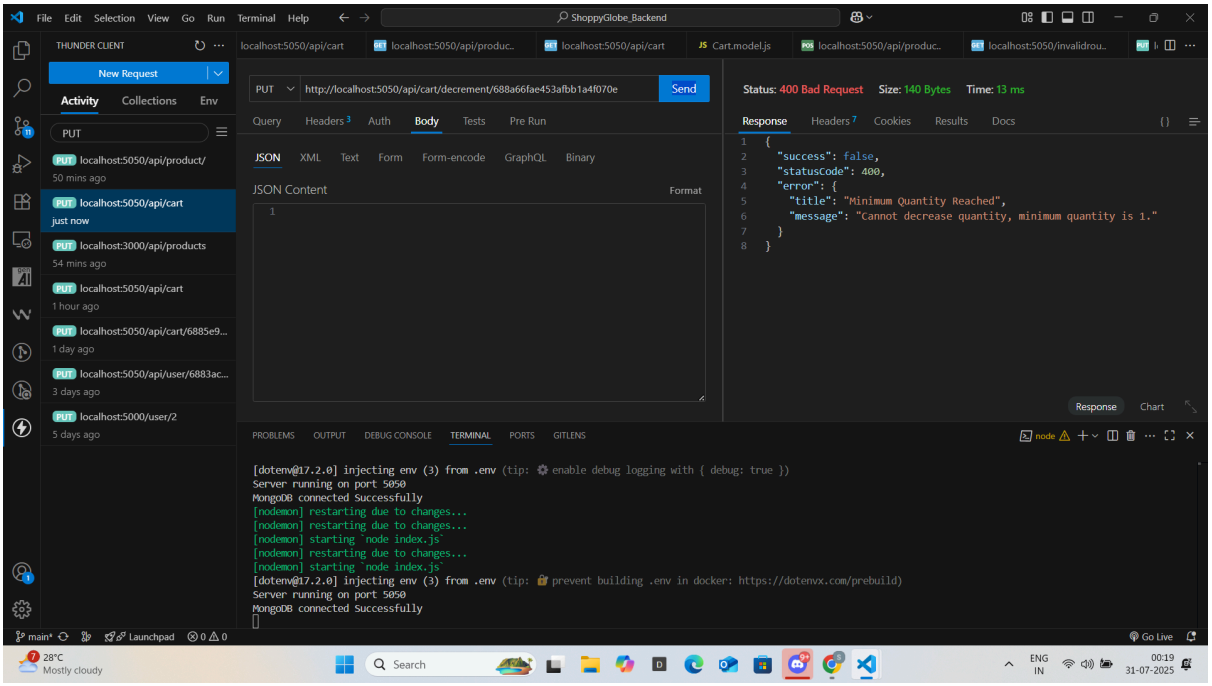
27. Update Cart Item - Stock exceeded

- **Expected**: `400 Bad Request`, "Stock Limit Exceeded"



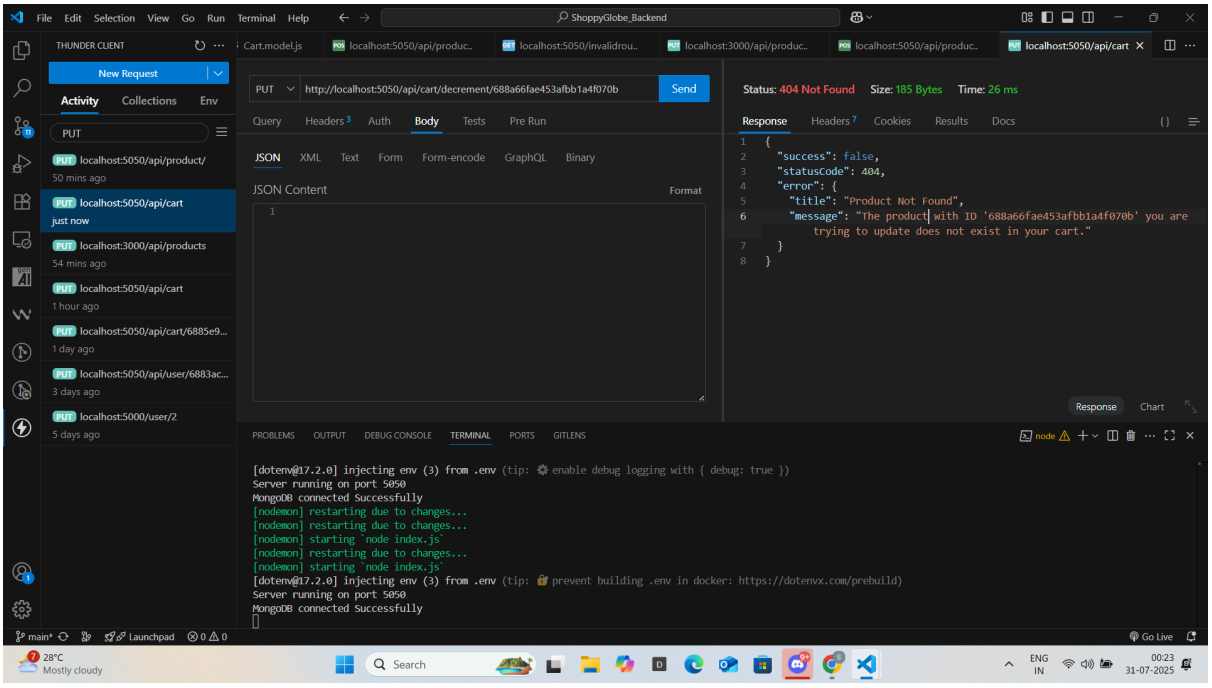
28. Decrease Cart Item quantity - Minimum Quantity

- **Expected**: `400 Bad Request`, "**Minimum Quantity Reached**"



29. Update Cart Item - Non existing product

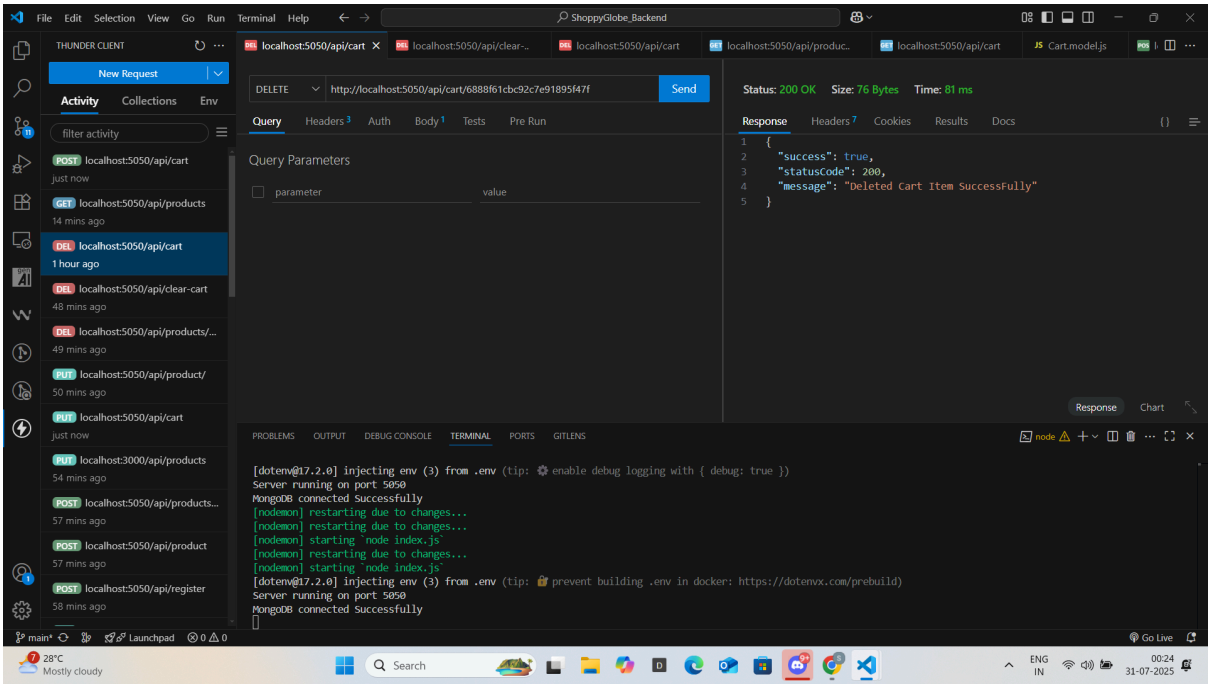
- **Expected**: `404 Not Found`, "Product Not Found"



30. Remove Item from Cart

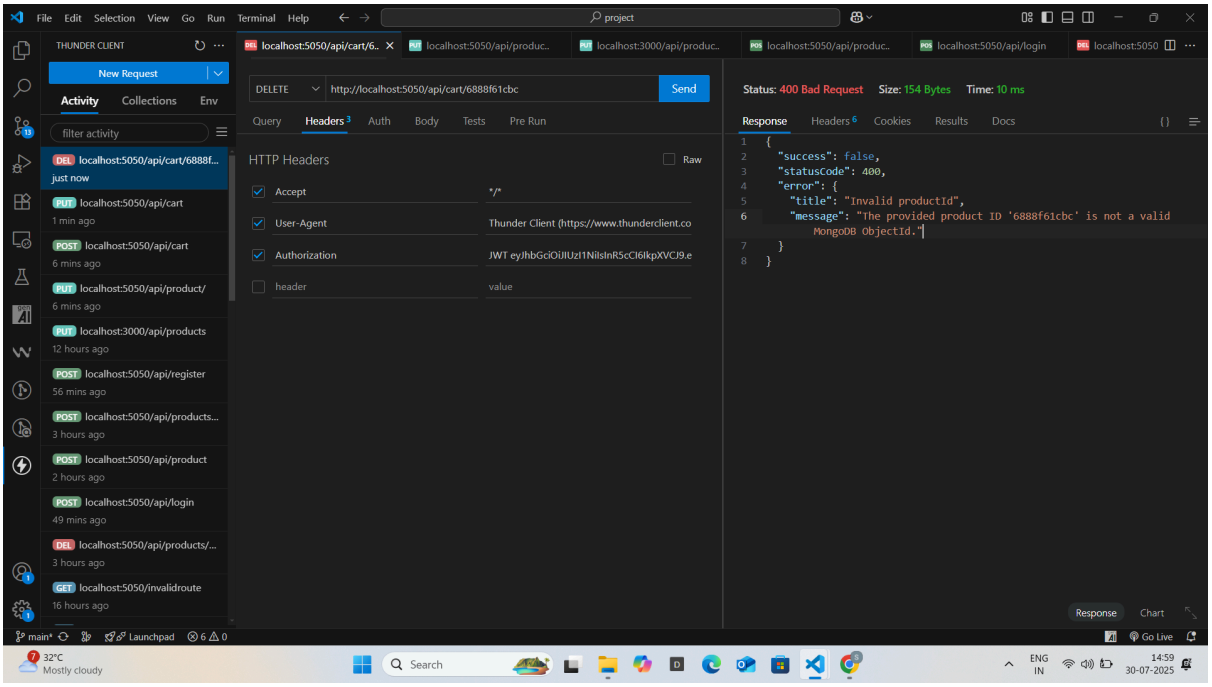
- **DELETE** `/api/cart/:productId`

- **Expected**: `200 OK`, Deleted cart item successfully



31. Remove Item from Cart - Invalid ProductID

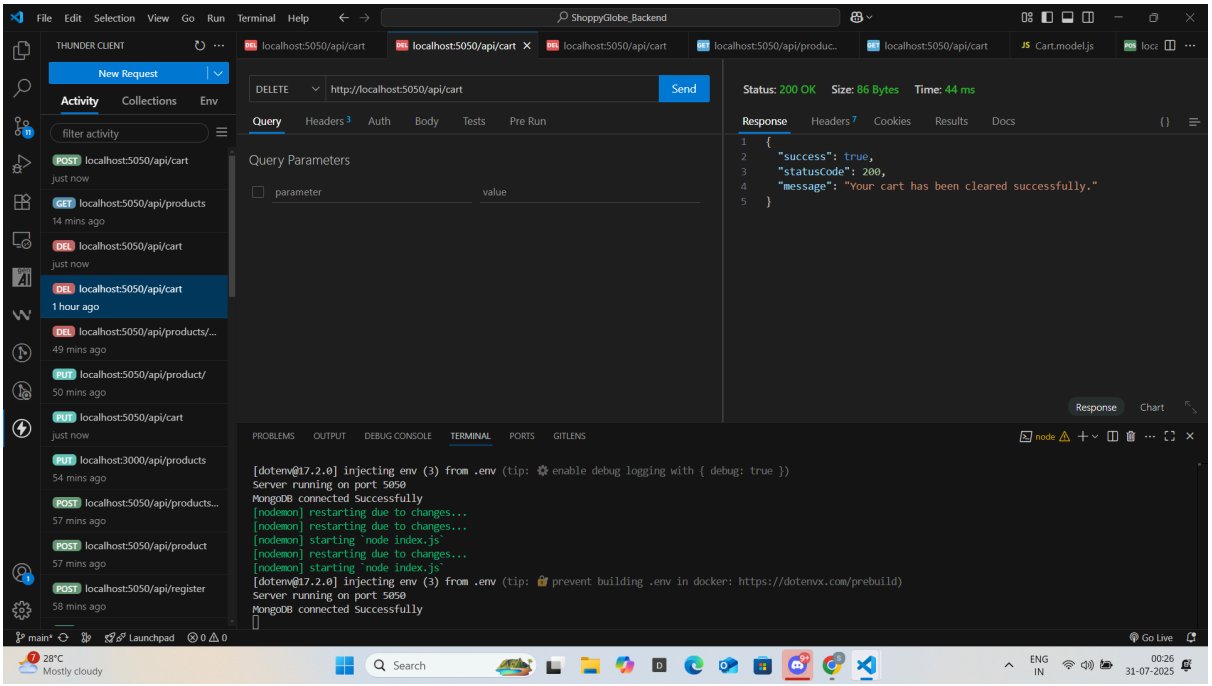
- **Expected**: `400 Bad Request`, "Invalid ProductId"



32. Clear Entire Cart

- **DELETE** `/api/cart`

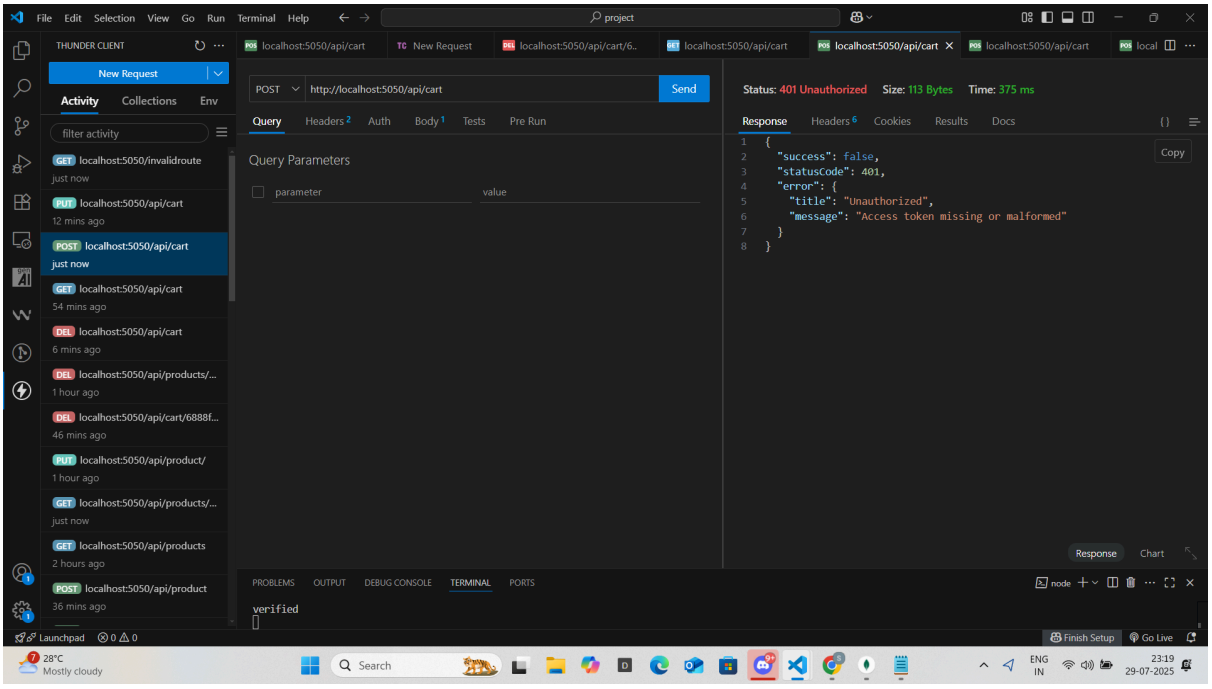
- **Expected**: `200 OK`, "Cart cleared"



Error & Misc Testing

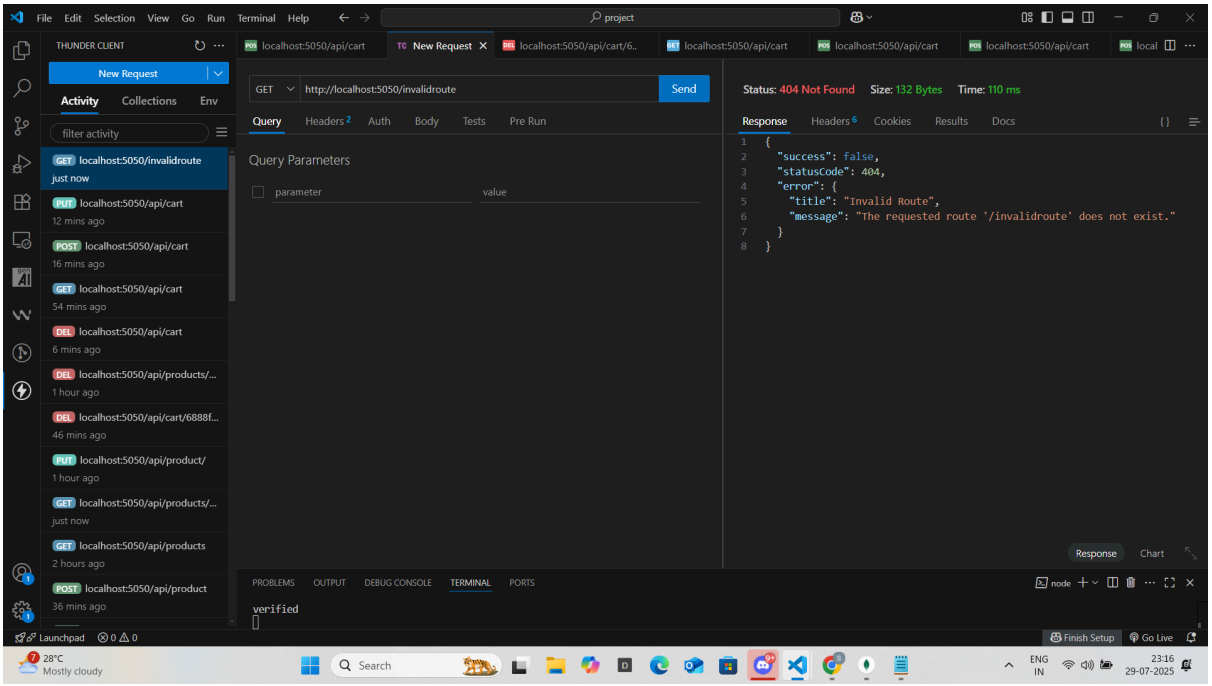
33. Access Protected routes without token

- **Expected**: `401 Unauthorized`, "Access token missing"



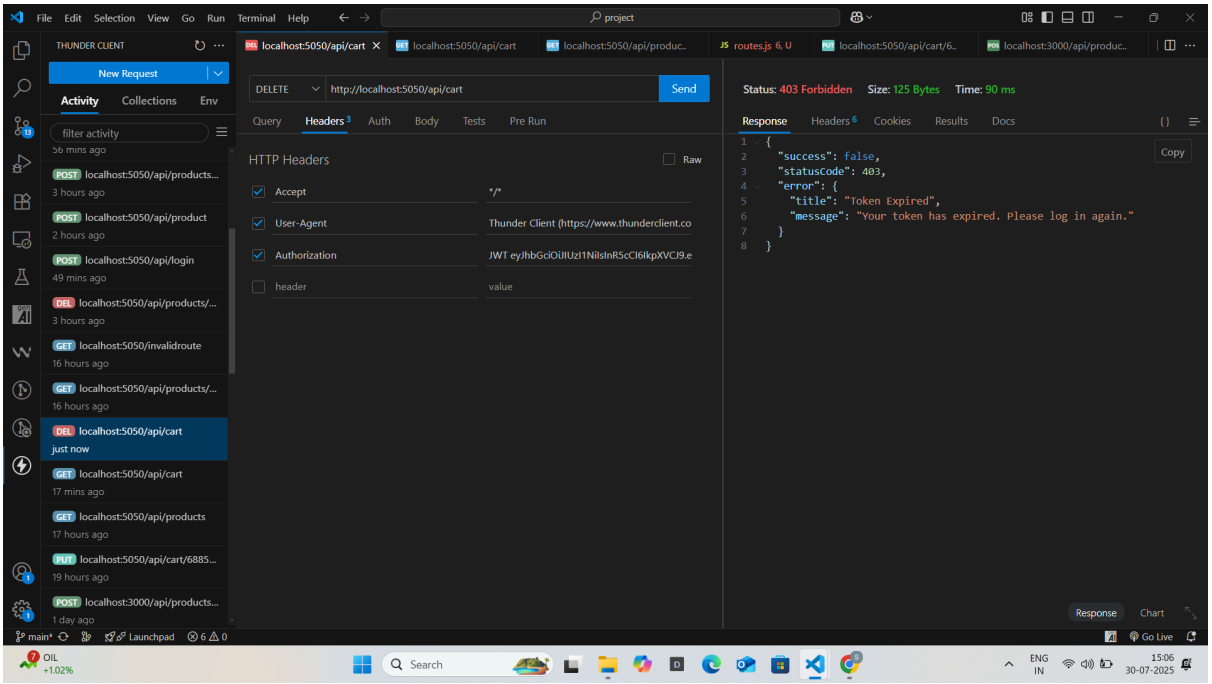
34. Invalid Route Access

- **GET** `/invalidroute`
- **Expected**: `404 Not Found`, "Invalid Route"



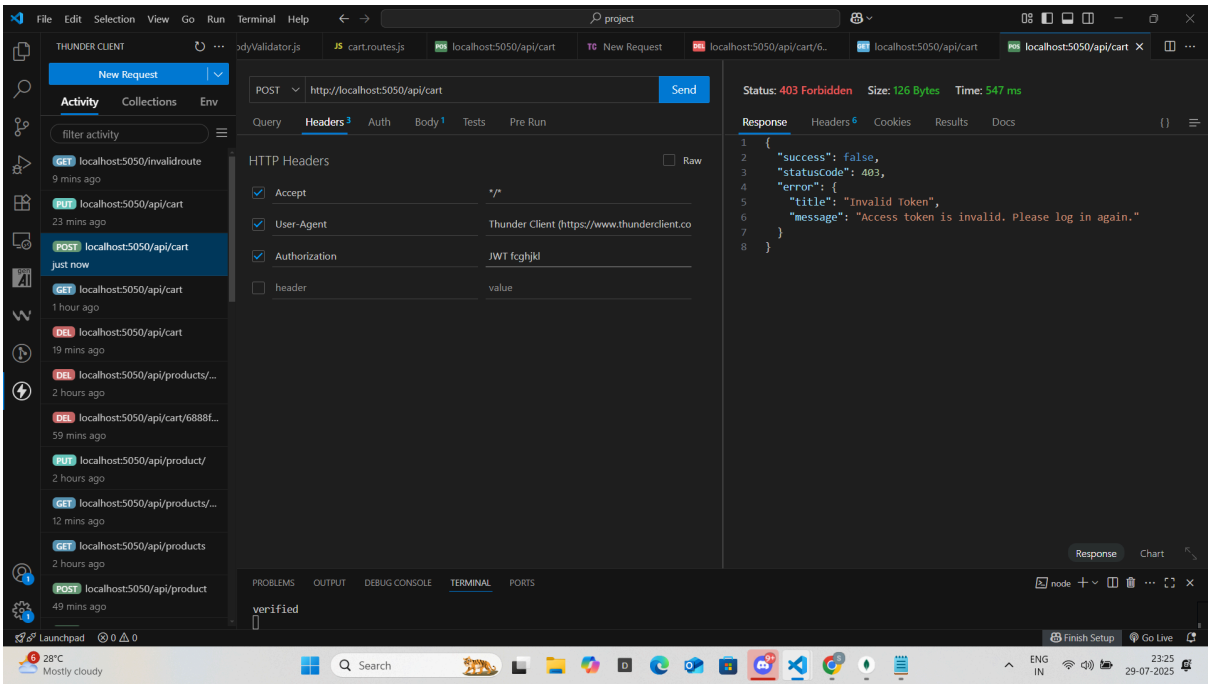
35. Expired Token

- **Expected**: `403 Forbidden`, "Token Expired"



36. Invalid Token Format

- **Expected**: `403 Forbidden`, "Invalid Token"



37. Invalid Json

- **Expected**: `400 Bad Request`, "Invalid Json"