

End to End API testing Flow

API Details:

Base URL: <https://dummyjson.com>

Tool to be use: Postman

Document to be refer: <https://dummyjson.com/docs>

Note: Follow API Chaining mechanism and data driven testing

Project Theme: E-Commerce System (Products, Users, Cart, Auth)

You are assigned to test the E-Commerce API for a retail application. The API supports user registration, login, product listing, cart management, and more.

API Endpoints Covered

Feature	Endpoint	Method
Login	/auth/login	POST
Get Users	/users	GET
Get User	/users/{id}	GET
Get Products	/products	GET
Search Products	/products/search?q={term}	GET
Get Cart	/carts/{id}	GET
Add to Cart	/carts/add	POST

Task 1: Set Up Testing Environment

- Create a Postman collection: "E-Commerce API Test"

- Set up Environment Variables:
 - `base_url = https://dummyjson.com`

Task 2: Authentication Testing

Login Endpoint: `/auth/login`

Method: POST

Test Credentials: Can refer document as well

json

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```
{  
  "username": "kminchelle",  
  "password": "0lelplR"  
}
```

Check:

- Successful login returns a token
- Incorrect password returns error
- Missing fields return error

Task 3: User Testing

Test:

- Get all users: `/users`
- Get specific user: `/users/1`
- Edge Case: Get non-existing user

Task 4: Product Testing

Scenarios:

- Get all products

- Search products by keyword (/products/search?q=laptop)
- Check response time and status code
- Check response structure

Task 5: Cart Testing

Scenarios:

- Get cart by ID (/carts/1)
- Add to cart (/carts/add):

json

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```
{
  "userId": 1,
  "products": [
    {
      "id": 1,
      "quantity": 2
    },
    {
      "id": 50,
      "quantity": 1
    }
  ]
}
```

- Add invalid product ID
- Add quantity > stock

Task 6: Negative Testing

- Missing required fields
- Invalid data type

- Incorrect endpoint
- Unauthorized access simulation (try with no login where required)

Task 8: Document Test Cases

ask 8: Report Bugs

Example Bug Report Table:

Bug ID	Title	Steps	Expected	Actual	Severity
BUG001	Login accepts blank password	POST /auth/login with ""	400 Bad Request	200 OK	High

Expected:

1. Add Postman Collect in a format Yourname_Date
2. Test case document
3. Bug report
4. Report Summary