API Endpoint: Get Single Product

Endpoint Details

- **URL:** http://localhost:5000/api/product/<p_id>
- **Method:** GET
- **Description:** This endpoint retrieves a single product based on its ID and requires the user to be authenticated.

Request Parameters

Parameter	Type	Required	Description
p_id	string	Yes	Product ID

Request Headers

- **Cookie:** token=<authentication_token>

Test Cases

1. Successful Retrieval of Product

- **Description:** Verify that the API returns the product details for a valid product ID and authenticated user.
- **Input:**
    - URL: http://localhost:5000/api/product/<valid_product_id>
    - **Headers:**
        - Cookie: token=<valid_token>
- **Expected Response:**
    - **Status Code:** 200 OK
    - **Body:** JSON object containing product details

2. Invalid Product ID

- **Description:** Verify that the API returns an error when an invalid product ID is provided.
- **Input:**
    - URL: http://localhost:5000/api/product/<invalid_product_id>
    - **Headers:**

■ Cookie: `token=<valid_token>`
- **Expected Response:**
    - **Status Code:** 404 Not Found
    - **Body:** JSON object containing an error message (e.g., `{ "error": "Product not found" }`)

3. User Not Authenticated

- **Description:** Verify that the API returns an error when the user is not authenticated or the authentication token is missing/invalid.
- **Input:**
    - URL: `http://localhost:5000/api/product/<valid_product_id>`
    - **Headers:**
        - Cookie: `token=<invalid_or_missing_token>`
- **Expected Response:**
    - **Status Code:** 401 Unauthorized
    - **Body:** JSON object containing an error message (e.g., `{ "error": "Not authorized" }`)

Test Results

Test Case	Status	Response Code	Response Body	Remarks
Successful Retrieval of Product	Pass	200	JSON object with product details	Product retrieved successfully
Invalid Product ID	Pass	404	{ "error": "Product not found" }	Appropriate error message shown
User Not Authenticated	Pass	401	{ "error": "Not authorized" }	Appropriate error message shown