# Product API Documentation

This document provides details about the Product API, which allows users to perform CRUD operations, pagination, filtering, and sorting on product data stored in MongoDB.

## Base URL

http://localhost:8000/products

## API Endpoints

### 1. Create Product

Endpoint: POST /create

Request Body (JSON):

{  
 "name": "Product Name",  
 "description": "Product Description",  
 "price": 100.0,  
 "stock": 10,  
 "category": "Electronics"  
}

Response: Returns the created product object.

### 2. Create Multiple Products

Endpoint: POST /create\_bulk

Request Body (JSON):

{  
 "products": [  
 {  
 "name": "Product1",  
 "description": "Desc1",  
 "price": 50.0,  
 "stock": 5,  
 "category": "Books"  
 },  
 {  
 "name": "Product2",  
 "description": "Desc2",  
 "price": 70.0,  
 "stock": 3,  
 "category": "Fashion"  
 }  
 ]  
}

Response: Returns the inserted IDs of the products.

### 3. Get Product by ID

Endpoint: GET /{product\_id}

Response: Returns the product details if found, otherwise 404.

### 4. List All Products

Endpoint: GET /list\_all

Response: Returns a list of all products.

### 5. Update Product

Endpoint: PUT /{product\_id}

Request Body (JSON) (any field can be updated):

{  
 "name": "Updated Name",  
 "price": 120.0  
}

Response: Returns the updated product details.

### 6. Delete Product

Endpoint: DELETE /{product\_id}

Response: Returns success message if deletion is successful.

### 7. Paginated Product List

Endpoint: GET /list/paginate?page={page}&limit={limit}

Response: Returns products for the given page and limit.

### 8. Filter & Sort Products

Endpoint: GET /filter?category={category}&min\_price={min\_price}&max\_price={max\_price}&sort={asc/dsc}

Parameters:

- category (optional): Filter by category

- min\_price (optional): Minimum price filter

- max\_price (optional): Maximum price filter

- sort (optional): Sort by price ('asc' or 'dsc')

Response: Returns filtered and sorted product list.

### 9. Health Check

Endpoint: GET /

Response: {"message": "API is running"}