

# Project Documentation:

## Product Management API with Authentication

### Overview

This project is a secure product management API built with **Laravel** and **Laravel Passport** for user authentication. It allows **registered users** to manage products through API endpoints with **CRUD operations, filtering, sorting, and pagination**.

Only logged-in users can access product data.

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## Authentication System (Laravel Passport)

### Features:

- **User Registration**
- **User Login**
- **Access Token Generation** via Laravel Passport
- Protected routes: Only logged-in users can access product features.

### Flow:

1. User registers with name, email, and password.
  2. On login, they receive a **token** (like a digital key).
  3. This token must be sent with every request to access the protected API.
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## Product Management API

### Product Fields:

| Field    | Type    | Description       |
|----------|---------|-------------------|
| id       | Integer | Unique product ID |
| name     | String  | Product name      |
| category | String  | Product category  |

|             |       |                       |
|-------------|-------|-----------------------|
| price       | Float | Product price         |
| description | Text  | Detailed info         |
| created_at  | Date  | Product creation date |

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