Practical Assignment: Product Management System

Build a simple Product Listing Portal with admin — no login or registration required. Admin can manage products, while customer can view and search for products

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Admin Panel (`/admin`)

1. Dashboard (`/admin`)

- Show **total number of products**

- Show **total number of categories**

- Add navigation buttons to:

    - Product Listing Page

    - Category Listing Page

2. Category Management (`/admin/categories`)

Fields (for Add/Edit Form):

- `name` – Name of the category (e.g., "Electronics")

- `slug` – URL-friendly version of the category name (auto-generated)

Features:

- List all categories

- Add new category

- Edit existing category

- Delete category (soft delete)

3. Product Management (`/admin/products`)

Fields (for Add/Edit Form):

- `name` – Product name

- `slug` – should be auto-generated

- `category` – Select dropdown (linked to categories)

- `description` – Product description

- `image` – Upload image using Multer

- `isDeleted` – Boolean (used for soft delete)

Features:

- List all products with:

    - Product name

    - Category name

- Image

- Action buttons: Edit / Delete

- Add product with proper form validation

- Edit product with proper form validation

    - Change details and upload new image

    - Delete old image from `uploads/` folder on image update

- Delete product

    - Delete image file from `uploads/` folder

- Use flash messages for add/edit/delete actions

Customer Portal (`/`)

1. Homepage

- Display all products

- Filter by category

- Search by keyword (product name or description)

2. Product Detail Page

- Accessible at `/product/:slug` or `/product/:id`

- Show:

    - Product name

    - Category Name

    - Full description

    - Image

All students should follow

- Use MVC code structure

- Use meaningful variable names

- Use EJS as the templating engine

- Use Multer for file uploads

- Use Joi for form validation

- Run app using nodemon