Product Module Documentation

# 1. Migration Details

The `products` table includes the following columns:  
- id (Primary Key)  
- ClientName (string)  
- ProductName (string)  
- ProductPrice (string)  
- Store (integer)  
- Status (enum: Yes, No, default: Yes)  
- AddedBy (integer, nullable)  
- UpdatedBy (integer, nullable)  
- created\_at (timestamp)  
- updated\_at (timestamp)  
- deleted\_at (timestamp, nullable - for soft deletes)

# 2. Model: ProductMaster

Model: `ProductMaster`  
- Uses: SoftDeletes, HasFactory  
- Table: products  
- Fillable fields: ClientName, ProductName, ProductPrice, Store, Status, AddedBy, UpdatedBy, created\_at, updated\_at

# 3. Controller: ProductMasterController

## 3.1 index(Request $request)

Fetches and filters product records using optional filters:  
- Id (integer)  
- Name (string, filters ClientName)  
- Status (enum: Yes/No)  
  
Utilizes Redis caching for performance improvement.

## 3.2 store(Request $request)

Adds a new product record. Validates required fields:  
- ClientName (required, unique)  
- ProductName (required)  
- Status (required: Yes/No)  
- ProductPrice (optional)  
- Store (optional)  
- AddedBy (optional)  
  
Flushes Redis cache after storing.

## 3.3 update(Request $request)

Updates an existing product record based on ID. Validates:  
- ClientName (required)  
- ProductName (required)  
- Status (required)  
- ProductPrice (optional)  
- Store (optional)  
- UpdatedBy (optional)  
  
Flushes Redis cache after update.

## 3.4 destroy(Request $request)

Soft deletes a product based on ID using Eloquent's soft delete.  
Flushes Redis cache after deletion.

# 4. API Payload Examples

## 4.1 Store Request Payload (POST /products)

{  
 "ClientName": "Client A",  
 "ProductName": "Product X",  
 "ProductPrice": "99.99",  
 "Store": 10,  
 "Status": "Yes",  
 "AddedBy": 1  
}

## 4.2 Update Request Payload (PUT /products)

{  
 "id": 1,  
 "ClientName": "Client A",  
 "ProductName": "Product Y",  
 "ProductPrice": "89.99",  
 "Store": 12,  
 "Status": "No",  
 "UpdatedBy": 2  
}

## 4.3 Delete Request Payload (DELETE /products)

{  
 "id": 1  
}

# 5. API Routes

- GET /products  
 - Fetch list of products. Optional filters: Id, Name, Status  
  
- POST /products  
 - Create new product  
  
- PUT /products  
 - Update existing product  
  
- DELETE /products  
 - Soft delete product by ID