

Developer Guide — Disara

Restaurant Platform Engineering

Project Responsibility Summary

You are responsible for the menu and promotion management systems and image upload pipeline.

- Menu CRUD service
- Categories and modifiers management
- Promotions service
- Image uploads to MongoDB GridFS
- Admin interface in React
- Data validation and input rules
- Quality and testing of CRUD flows

Tech Stack

- Spring Boot (Java)
- MySQL
- MongoDB GridFS for images
- React + Tailwind
- React Query, Axios, RHF

Database Responsibilities

MySQL Tables

```
items(id, restaurant_id, name, description, price, image_id, dietary, is_active)
categories(id, restaurant_id, name, sort_order)
item_categories(item_id, category_id)
modifiers(id, item_id, name, type, options)
promotions(id, restaurant_id, name, discount_type, discount_value, start_at, end_at)
```

MongoDB GridFS

All menu images stored in fs.files and fs.chunks.

Endpoints

Menu

```
GET /api/v1/restaurants/{restaurantId}/menu
GET /api/v1/menu/items/{itemId}
POST /api/v1/restaurants/{restaurantId}/menu/items
PATCH /api/v1/menu/items/{itemId}
DELETE /api/v1/menu/items/{itemId}
```

Promotions

```
GET /api/v1/restaurants/{restaurantId}/promotions  
POST /api/v1/restaurants/{restaurantId}/promotions  
PATCH /api/v1/promotions/{promotionId}  
DELETE /api/v1/promotions/{promotionId}
```

Media Upload

```
POST /api/v1/media/upload  
GET /api/v1/media/{fileId}  
DELETE /api/v1/media/{fileId}
```

Backend Development Guidelines

Spring Boot Rules

- Folder structure:

```
controller/  
service/  
repository/  
entity/  
dto/  
config/
```

- Validate request body with @Valid
- Use Flyway for database migrations
- GridFS for all image storage
- Store image Id only in MySQL

Data Handling Rules

- Validate price, dietary JSON, category bindings
- Reject images over size limits
- Support English + Sinhala menu text

Frontend Development Guidelines

React Rules

- Folder structure:

```
src/features/menu/  
src/features/promotions/  
src/features/media/
```

- Use React Query for fetch
- React Hook Form + Zod for validation
- Show image preview before upload

UI Expectations

- Menu creation form
- Promotion form with start/end date picker
- File upload with progress bar

Definition of Done

- Menu CRUD working with images
- Category + modifiers fully functional
- Promotion service working
- Clean UI with form validation
- Test coverage for service layer