

Recipe Management API

Overview

A RESTful API built with Spring Boot and MongoDB that allows users to manage a collection of cooking recipes. The application supports full CRUD operations and exposes interactive documentation via Swagger.

Features

- Create, read, update, and delete recipes
- Store and retrieve data from MongoDB
- API input validation
- Integrated Swagger UI for API testing

Technologies Used

- Java 21
- Spring Boot 3.4.5
- Spring Data MongoDB
- Maven
- MongoDB
- Swagger (Springdoc OpenAPI)
- Postman (for manual testing)

Getting Started

Prerequisites

- Java 21 installed
- MongoDB running locally (default port 27017)

Recipe Management API

- Maven (optional, project uses Maven wrapper)

Running the Project

```
```bash
cd recipeapi
./mvnw spring-boot:run
```

OR on Windows:

```
mvnw.cmd spring-boot:run
```
```

Swagger UI

Once the application is running, visit:

<http://localhost:8080/swagger-ui/index.html>

This UI lets you test all the API endpoints interactively.

API Endpoints

| Method | Endpoint | Description |
|--------|---------------|---------------------------|
| GET | /recipes | Retrieve all recipes |
| GET | /recipes/{id} | Get recipe by ID |
| POST | /recipes | Create a new recipe |
| PUT | /recipes/{id} | Update an existing recipe |

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| DELETE | /recipes/{id} | Delete a recipe by ID |

Example Recipe Object

```
{  
  
  "title": "Spaghetti Carbonara",  
  
  "description": "A creamy pasta dish...",  
  
  "ingredients": ["spaghetti", "eggs", "cheese", "pancetta"],  
  
  "instructions": ["Boil pasta", "Cook pancetta", "..."],  
  
  "cookingTime": 20,  
  
  "category": "Pasta"  
}
```

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