

RECIPIES

🕒 Created	@May 23, 2025 5:46 PM
🏷️ Tags	

Create a venv

Backend:

MySQL setup:

db name: recipe_db

Database:

```
mysql> DESCRIBE recipes;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
cuisine	varchar(255)	YES		NULL	
title	varchar(255)	YES		NULL	
rating	float	YES		NULL	
prep_time	int	YES		NULL	
cook_time	int	YES		NULL	
total_time	int	YES		NULL	
description	text	YES		NULL	
nutrients	json	YES		NULL	
serves	varchar(255)	YES		NULL	

10 rows in set (0.04 sec)

Data Preprocessing:

under data folder

- takes recipe.json as input preprocesses data as said and according to the data and stores them a new json file: "clean_recipe.json"
- Python file: preprocess.py

```

backend > data > {} clean_recipes.json > ...
1  {
2    {
3      "id": 1,
4      "cuisine": "Southern Recipes",
5      "title": "Sweet Potato Pie",
6      "rating": 4.8,
7      "prep_time": 15,
8      "cook_time": 100,
9      "total_time": 115,
10     "description": "Shared from a Southern recipe, this homemade sweet potato pie is easy to make with boiled sweet potato. Try it
11     "nutrients": {
12       "calories": 389.0,
13       "carbohydrateContent": 48.0,
14       "cholesterolContent": 78.0,
15       "fiberContent": 3.0,
16       "proteinContent": 5.0,
17       "saturatedFatContent": 10.0,
18       "sodiumContent": 254.0,
19       "sugarContent": 28.0,
20       "fatContent": 21.0,
21       "unsaturatedFatContent": 0.0
22     },
23     "serves": "8 servings"
24   },
25   {
26     "id": 2,

```

Loading data to database:

- use mysql-connector-python to connect to mysql database and store the contents in the database.
- python file: database.py
- data successfully updated my sql

Local instance MySQL92 - W... x

File Edit View Query Database Server Tools Scripting Help

Navigator: Schemas

Filter objects

recipe_db

Tables

recipes

Columns

- id
- cuisine
- title
- rating
- prep_time
- cook_time
- total_time
- description
- nutrients
- serves

Indexes

- PRIMARY
- Foreign Keys

Views

Stored Procedures

Functions

sakila

subscription_manager

subscriptions_db

Administration Schemas

Information

Table: recipes

Columns:

- id int AI PK
- cuisine varchar(255)
- title varchar(255)
- rating float
- prep_time int
- cook_time int
- total_time int
- description text
- nutrients json
- serves varchar(255)

Object Info Session

Query 1 recipes x

Limit to 1000 rows

1 • SELECT * FROM recipe_db.recipes;

Result Grid

id	cuisine	title	rating	prep_time	cook_time	total_time	description
1	Southern Recipes	Sweet Potato Pie	4.8	15	100	115	Shared
2	Southern Recipes	Fresh Southern Peach Cobbler	4.7	20	40	60	This pe
3	Southern Recipes	Best Fried Green Tomatoes	4.7	5	15	20	Fried g
4	Southern Recipes	Best Jambalaya	4.8	20	45	65	A spicy
5	Southern Recipes	Authentic Louisiana Red Beans and Rice	4.5	25	185	690	This ea
6	Southern Recipes	Southern Pimento Cheese	4.8	15	15	15	Piment
7	Southern Recipes	Kickin' Collard Greens	4.8	10	60	70	These
8	Southern Recipes	Bananas Foster	4.8	5	15	20	Elegan
9	Southern Recipes	Chef John's Buttermilk Biscuits	4.7	20	15	35	These
10	Southern Recipes	Southern Fried Cabbage	4.7	10	10	20	Fried c
11	Southern Recipes	Southern-Style Chocolate Gravy	4.8	10	10	20	This ch
12	Southern Recipes	Chef John's Buttermilk Fried Chicken	4.5	15	25	410	Butterr
13	Southern Recipes	Grandmother's Buttermilk Cornbread	4.8	15	30	45	Grandr
14	Southern Recipes	Southern Fried Catfish	4.5	20	10	30	This fri

recipes 2 x

Output

Action Output

#	Time	Action	Message
1	18:08:33	SELECT * FROM recipe_db.recipes LIMIT 0, 1000	0 row(s) returned
2	18:37:36	SELECT * FROM recipe_db.recipes LIMIT 0, 1000	1000 row(s) returned

API TESTING: (2 API endpoints)

Basic API endpoint:

```
127.0.0.1:8000/api/recipes

[
  {
    "id": 8301,
    "cuisine": "Tex-Mex Recipes",
    "title": "Mexican Black Bean and Turkey Wraps",
    "rating": 5,
    "prep_time": 10,
    "cook_time": 35,
    "total_time": 45,
    "description": "These easy ground turkey wraps will feed the whole family with a lean yet filling combo of green chiles, spices, brown rice, and black beans.",
    "nutrients": {
      "calories": 483,
      "fatContent": 11,
      "fiberContent": 10,
      "sugarContent": 6,
      "sodiumContent": 1883,
      "proteinContent": 31,
      "cholesterolContent": 90,
      "carbohydrateContent": 45,
      "saturatedFatContent": 3,
      "unsaturatedFatContent": 0
    },
    "serves": "4 servings"
  },
  {
    "id": 8441,
    "cuisine": "Amish and Mennonite Recipes",
    "title": "Healthier Amish Friendship Bread Starter",
    "rating": 5,
    "prep_time": 30,
    "cook_time": 10,
    "total_time": 13000,
    "description": "Low-fat milk and white whole wheat flour make for a healthier version of this traditional yeasted and fermented starter for sweet bread. Because the recipe produces so much starter, give some away to friends.",
    "nutrients": {
      "calories": 33,
      "fatContent": 0,
      "fiberContent": 0,
      "sugarContent": 5,
      "sodiumContent": 3,
      "proteinContent": 1,
      "cholesterolContent": 0,
      "carbohydrateContent": 8,
      "saturatedFatContent": 0
    },
    "serves": "120 servings"
  },
  {
    "id": 8435,

```

1. Paginated and sorted display

```
127.0.0.1:8000/api/recipes?page=2&limit=20

{
  "page": 2,
  "limit": 20,
  "total": 8451,
  "data": [
    {
      "id": 8856,
      "cuisine": "New England Recipes",
      "title": "Bean-Hole Beans",
      "rating": 5,
      "prep_time": 55,
      "cook_time": 720,
      "total_time": 790,
      "description": "Beans baked the old-fashioned way -- in a bean hole! These are full of the authentic baked beans flavors of molasses and salt pork. Great for big outdoor gatherings.",
      "nutrients": {
        "calories": 390,
        "fatContent": 16,
        "fiberContent": 10,
        "sugarContent": 16,
        "sodiumContent": 251,
        "proteinContent": 13,
        "cholesterolContent": 21,
        "carbohydrateContent": 51,
        "saturatedFatContent": 7,
        "unsaturatedFatContent": 0
      },
      "serves": "30 servings"
    },
    {
      "id": 7869,
      "cuisine": "Hanukkah Kugel",
      "title": "Sweet Noodle Kugel",
      "rating": 5,
      "prep_time": 10,
      "cook_time": 55,
      "total_time": 65,
      "description": "There are endless variations on this recipe, but this sweet noodle kugel is reminiscent of one you'd get in a Jewish deli in New York City.",
      "nutrients": {
        "calories": 364,
        "fatContent": 15,
        "fiberContent": 1,
        "sugarContent": 20,
        "sodiumContent": 429,
        "proteinContent": 15,
        "cholesterolContent": 121,
        "carbohydrateContent": 44,
        "saturatedFatContent": 8,
        "unsaturatedFatContent": 0
      },

```

2. Search based on various fields

```
127.0.0.1:8000/api/recipes/search?calories=<=400&title=pie&rating=>=4.5

{
  "data": [
    {
      "id": 1,
      "cuisine": "Southern Recipes",
      "title": "Sweet Potato Pie",
      "rating": 4.8,
      "prep_time": 15,
      "cook_time": 100,
      "total_time": 115,
      "description": "Shared from a Southern recipe, this homemade sweet potato pie is easy to make with boiled sweet potato. Try it, it may just be the best you've ever tasted!",
      "nutrients": {
        "calories": 389,
        "fatContent": 21,
        "fiberContent": 3,
        "sugarContent": 28,
        "sodiumContent": 254,
        "proteinContent": 5,
        "cholesterolContent": 78,
        "carbohydrateContent": 48,
        "saturatedFatContent": 10,
        "unsaturatedFatContent": 0
      },
      "serves": "8 servings"
    },
    {
      "id": 64,
      "cuisine": "Southern Desserts",
      "title": "Sweet Potato Pie",
      "rating": 4.8,
      "prep_time": 15,
      "cook_time": 100,
      "total_time": 115,
      "description": "Shared from a Southern recipe, this homemade sweet potato pie is easy to make with boiled sweet potato. Try it, it may just be the best you've ever tasted!",
      "nutrients": {
        "calories": 389,
        "fatContent": 21,
        "fiberContent": 3,
        "sugarContent": 28,
        "sodiumContent": 254,
        "proteinContent": 5,
        "cholesterolContent": 78,
        "carbohydrateContent": 48,
        "saturatedFatContent": 10,
        "unsaturatedFatContent": 0
      },
      "serves": "8 servings"
    }
  ],
  {

```

3. Implemented pagination for search api

```
127.0.0.1:8000/api/recipes?calories<=450&pages=1&limit=15

{
  "page": 1,
  "limit": 15,
  "total": 8451,
  "data": [
    {
      "id": 8301,
      "cuisine": "Tex-Mex Recipes",
      "title": "Mexican Black Bean and Turkey Wraps",
      "rating": 5,
      "prep_time": 10,
      "cook_time": 35,
      "total_time": 45,
      "description": "These easy ground turkey wraps will feed the whole family with a lean yet filling combo of green chiles, spices, brown rice, and black beans.",
      "nutrients": {
        "calories": 483,
        "fatContent": 11,
        "fiberContent": 10,
        "sugarContent": 6,
        "sodiumContent": 1883,
        "proteinContent": 31,
        "cholesterolContent": 90,
        "carbohydrateContent": 45,
        "saturatedFatContent": 3,
        "unsaturatedFatContent": 0
      },
      "serves": "4 servings"
    },
    {
      "id": 8441,
      "cuisine": "Amish and Mennonite Recipes",
      "title": "Healthier Amish Friendship Bread Starter",
      "rating": 5,
      "prep_time": 30,
      "cook_time": 10,
      "total_time": 13000,
      "description": "Low-fat milk and white whole wheat flour make for a healthier version of this traditional yeasted and fermented starter for sweet bread. Because the recipe produces so much starter, give some away to friends.",
      "nutrients": {
        "calories": 33,
        "fatContent": 0,
        "fiberContent": 0,
        "sugarContent": 5,
        "sodiumContent": 3,
        "proteinContent": 1,
        "cholesterolContent": 0,
        "carbohydrateContent": 8,
        "unsaturatedFatContent": 0
      },
      "serves": "1"
    }
  ]
}
```

TO RUN:

preprocess.py → once to create a cleaned json file

data - folder

python preprocess.py

database.py → to load the cleaned input to the MySQL database

python database.py

main.py → Define API endpoints to display the data from the DB

uvicorn main:app —reload

API ENDPOINT 1 : <http://127.0.0.1:8000/api/recipes?page=2&limit=20>

(Page and limit, sorted based on the rating)

API ENDPOINT 2: <http://127.0.0.1:8000/api/recipes/search?calories=<=400&title=pie&rating=>=4.5>

(Search based on the various fields)

FRONTEND:

React+Vite:

npm create vite@latest recipe-frontend --template react

cd recipe-frontend

npm install

npm install axios

FRONTEND AND BACKEND CONNECTED using CORS:

Middleware:

```
app.add_middleware(  
    CORSMiddleware,  
    allow_origins=["http://localhost:5173"], # Frontend Vite dev server
```

```
    allow_credentials=True,  
    allow_methods=["*"],  
    allow_headers=["*"],  
)
```

Vite Config file:

```
import { defineConfig } from "vite";  
import react from "@vitejs/plugin-react";  
  
export default defineConfig({  
  plugins: [react()],  
  server: {  
    proxy: {  
      // Proxy /api requests to your backend server  
      "/api": {  
        target: "http://127.0.0.1:8000", // change to your backend URL and port  
        changeOrigin: true,  
        secure: false,  
      },  
    },  
  },  
});
```

RECIPE TABLE PAGE:

localhost:5173

RECIPE TABLE

Title	Cuisine	Rating	Total time	No. of people Serves
Healthier Amish Friendship Bread Starter	Amish and Mennonite Recipes	★★★★★	13000	120 servings
Amish Blackberry and Strawberry Baked Oatmeal	Amish and Mennonite Recipes	★★★★★	40	12 servings
Cajun Pastalaya	Cajun and Creole Recipes	★★★★★	90	8 servings
Green Chile Chicken Casserole	Tex-Mex Recipes	★★★★★	55	8 servings
Sopa de Mariscos (Seafood Soup)	Tex-Mex Recipes	★★★★★	95	10 servings
Mexican Black Bean and Turkey Wraps	Tex-Mex Recipes	★★★★★	45	4 servings
Amish Buttermilk Biscuits	Amish and Mennonite Recipes	★★★★★	25	7 servings
Amish Apple Dumplings	Amish and Mennonite Recipes	★★★★★	65	6 servings
Air Fryer Turkey Fajitas	Tex-Mex Recipes	★★★★★	50	4 servings
Amish Baked Oatmeal	Amish and Mennonite Recipes	★★★★★	35	8 servings
Authentic Fire-Roasted Tex-Mex Salsa	Tex-Mex Recipes	★★★★★	20	8 servings
Burrito Casserole	Tex-Mex Recipes	★★★★★	50	12 servings
Karen's Red Hot Campfire Potatoes	New Hampshire	★★★★★	60	6 servings
Bean-Hole Beans	Maine	★★★★★	790	30 servings

localhost:5173

Cajun Pastalaya	Cajun and Creole Recipes	★★★★★	9
Green Chile Chicken Casserole	Tex-Mex Recipes	★★★★★	5
Sopa de Mariscos (Seafood Soup)	Tex-Mex Recipes	★★★★★	9
Mexican Black Bean and Turkey Wraps	Tex-Mex Recipes	★★★★★	4
Amish Buttermilk Biscuits	Amish and Mennonite Recipes	★★★★★	2
Amish Apple Dumplings	Amish and Mennonite Recipes	★★★★★	6
Air Fryer Turkey Fajitas	Tex-Mex Recipes	★★★★★	5
Amish Baked Oatmeal	Amish and Mennonite Recipes	★★★★★	3
Authentic Fire-Roasted Tex-Mex Salsa	Tex-Mex Recipes	★★★★★	2
Burrito Casserole	Tex-Mex Recipes	★★★★★	5
Karen's Red Hot Campfire Potatoes	New Hampshire	★★★★★	6
Bean-Hole Beans	Maine	★★★★★	7
Air Fryer Tofu Milanese	Tex-Mex Recipes	★★★★★	3
Holiday Coffee Liquor	New Hampshire	★★★★★	3
Easy Chili Cavatappi	Tex-Mex Recipes	★★★★★	4
Tex-Mex Air Fryer Hash Browns	Tex-Mex Recipes	★★★★★	6
Bean-Hole Beans	New England Recipes	★★★★★	7
Harvest Noodle Pudding - Fruit Kugel	Hanukkah Kugel	★★★★★	1
Vegetable and Farfel Kugel	Hanukkah Kugel	★★★★★	7

Amish Baked Oatmeal

Amish and Mennonite Recipes

Description:

This recipe for Amish baked oatmeal combines simple ingredients for a warm, filling breakfast that's best served with peaches and milk.

Total Time: 35 ▶

Nutrition:

Calories	375
Carbohydrate	50
Cholesterol	49
Fiber	3
Protein	7
Saturated Fat	3
Sodium	452
Sugar	29
Fat	18

localhost:5173

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Cajun Pastalaya	Cajun and Creole Recipes	★★★★★	9
Green Chile Chicken Casserole	Tex-Mex Recipes	★★★★★	5
Sopa de Mariscos (Seafood Soup)	Tex-Mex Recipes	★★★★★	9
Mexican Black Bean and Turkey Wraps	Tex-Mex Recipes	★★★★★	4
Amish Buttermilk Biscuits	Amish and Mennonite Recipes	★★★★★	2
Amish Apple Dumplings	Amish and Mennonite Recipes	★★★★★	6
Air Fryer Turkey Fajitas	Tex-Mex Recipes	★★★★★	5
Amish Baked Oatmeal	Amish and Mennonite Recipes	★★★★★	3
Authentic Fire-Roasted Tex-Mex Salsa	Tex-Mex Recipes	★★★★★	2
Burrito Casserole	Tex-Mex Recipes	★★★★★	5
Karen's Red Hot Campfire Potatoes	New Hampshire	★★★★★	6
Bean-Hole Beans	Maine	★★★★★	7
Air Fryer Tofu Milanese	Tex-Mex Recipes	★★★★★	3
Holiday Coffee Liqueur	New Hampshire	★★★★★	3
Easy Chili Cavatappi	Tex-Mex Recipes	★★★★★	4
Tex-Mex Air Fryer Hash Browns	Tex-Mex Recipes	★★★★★	6
Bean-Hole Beans	New England Recipes	★★★★★	7
Harvest Noodle Pudding - Fruit Kugel	Hanukkah Kugel	★★★★★	1
Vegetable and Farfel Kugel	Hanukkah Kugel	★★★★★	7

Amish Baked Oatmeal

Amish and Mennonite Recipes

Description:

This recipe for Amish baked oatmeal combines simple ingredients for a warm, filling breakfast that's best served with peaches and milk.

Total Time: 35 ▼

Cook Time: 25

Prep Time: 10

Nutrition:

Calories	375
Carbohydrate	50
Cholesterol	49
Fiber	3
Protein	7
Saturated Fat	3
Sodium	452
Sugar	29
Fat	18

Customizable page limit:

localhost:5173

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RECIPE TABLE

Results per page:

Title	Cuisine	Rating	Total time	No. of people Serves
Sweet Noodle Kugel	Hanukkah Kugel	★★★★★	65	8 servings
Kneecaps	Hanukkah Doughnuts	★★★★★	180	120 servings
Erin's Canadian Fried Dough	Hanukkah Doughnuts	★★★★★	150	10 servings
Family Latkes	Hanukkah Latkes	★★★★★	80	12 servings
Pumpkin Sufganiot with Cranberry Jelly	Hanukkah Doughnuts	★★★★★	375	18 servings
Natalie Powell's Knishes	Hanukkah Appetizers	★★★★★	80	25 servings
Charoset	Seder Side Dishes	★★★★★	495	10 servings
Passover Double Chocolate Almond Torte	Dairy Desserts	★★★★★	60	10 servings
Pumpkin Sufganiot with Cranberry Jelly	Dairy Bread	★★★★★	375	18 servings
Charoses	Parve Desserts	★★★★★	15	5 servings
Watermelon Strawberry Mango Lemonade Smoothie	Strawberry Smoothies	★★★★★	5	4 servings
Fat-Free Vanilla Coffee Creamer	Coffee Drinks	★★★★★	35	10 servings
Hot Buttered Rum Single Serving	Coffee Drinks	★★★★★	10	1 serving
Cold Brew and Tonic	Coffee Drinks	★★★★★	5	1 serving
Backyard Berry Bowl	Strawberry Smoothies	★★★★★	10	2 servings

Search Feature Integration:

← → ↺ 🌐 localhost:5173

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RECIPE TABLE

Results per page: 15 ▼

Title	Cuisine	Rating	Total time	No. of people Serves
Peach Crumble Cake	Peach Crisps and Crumbles	★★★★☆	40	6 servings
Southern Peach Shortcake	Peach Cake	★★★★☆	60	8 servings
Fresh Fruit Cake	Peach Cake	★★★★☆	100	12 servings
Peaches 'n Cream Shortcake	Peach Cake	★★★★☆	75	4 servings
Sugar Pie IV	Chess Pie	★★★★☆	60	10 servings
Baked Chicken and Okra	Southern Chicken Main Dishes	★★★★☆	130	10 servings
Shrimp Gumbo	Gumbo	★★★★☆	70	6 servings
Crissi's Sweet Potato Biscuits	Southern Bread	★★★★☆	40	6 servings
Turnip, Mustard, and Collard Greens with Bacon	Collard Greens Recipes	★★★★☆	220	12 servings
Crissi's Sweet Potato Biscuits	Southern Breakfast and Brunch	★★★★☆	40	6 servings
Crispy Fried Poached Eggs	Southern Breakfast and Brunch	★★★★☆	27	4 servings
Crispy Fried Poached Eggs	Breakfast and Brunch	★★★★☆	27	4 servings
Air Fryer Churros	Doughnuts	★★★★☆	25	6 servings
Cheesecake Factory Banana Cheesecake with Home...	Banana Cake	★★★★☆	415	8 servings