

CookEasy

Curated Recipes for the New Chef

A project by The Debuggers

CookEasy is a recipe library that provides tailored recipe recommendations to match a user's skill level, accessible ingredients, and schedule availability for new cooks who are unhappy with current recipe sites which cater to more experienced home cooks.

FEATURES

New chefs will be able to personalize their recipe searches based on various factors related to ease of cooking, such as skill level, available equipment, timeframe — for both food preparation and actual cook time — and ingredient availability. In addition to these features, the site will provide user's options to filter recipes by overall caloric value, ingredients to avoid (due to food sensitivity or taste) and cuisine, enabling users to further curate their recipe recommendations according to dietary needs and preferences.

In the future, this product could include additional search features including:

- Users can search by cost of ingredients match user's budget or skills (e.g. "mincing" or "braising") that a user may be particularly interested in practicing
- Enable users to create profiles to track cooked recipes, earn badges
- Optimize recommendations on more difficult cooking as users learn new skills.

THE DATA

1. https://www.kaggle.com/shuyangli94/food-com-recipes-and-user-interactions?select=RAW_recipes.csv
2. <https://www.kaggle.com/irkaal/foodcom-recipes-and-reviews>

Up until now, both our data sources have csv files which we are going to assess for data discrepancies and once we are okay with them, we would then import them to our schema.

THE TEAM

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PM2 Notes

Tables to create:

1. Recipes
2. Users
3. Ingredients
4. Association (Recipes & Ingredients)
5. Reviews
6. Recommendations
7. RecipeBox
8. Keywords
9. Keywords Association Table
10. Ratings Table (Prep Rating, Cook Rating, Cost Rating, Taste Rating)

PM2 Create Tables:

```
CREATE SCHEMA IF NOT EXISTS CookEasyDatabase;  
USE CookEasyDatabase;
```

```
DROP TABLE IF EXISTS SavedRecipes;  
DROP TABLE IF EXISTS Ratings;  
DROP TABLE IF EXISTS Recommendation;  
DROP TABLE IF EXISTS Reviews;  
DROP TABLE IF EXISTS Users;  
DROP TABLE IF EXISTS RecipeIngredients;  
DROP TABLE IF EXISTS Ingredients;  
DROP TABLE IF EXISTS KeywordInRecipe;  
DROP TABLE IF EXISTS Keywords;  
DROP TABLE IF EXISTS Recipes;
```

```
CREATE TABLE Keywords (  
    KeywordName VARCHAR(255),  
    CONSTRAINT pk_Keywords_KeywordName      # changed, use KeywordName as primary key  
        PRIMARY KEY (KeywordName)  
);
```

```
CREATE TABLE Ingredients (  
    IngredientName VARCHAR(255),  
    CONSTRAINT pk_Ingredients_IngredientName # changed, use IngredientName as primary key  
        PRIMARY KEY (IngredientName)  
);
```

```
CREATE TABLE Recipes (  
    RecipeID INT,
```

```

RecipeName VARCHAR(255),
PrepTime VARCHAR(255), #NEED TO UNDERSTAND THIS BETTER
CookTime VARCHAR(255), #NEED TO UNDERSTAND THIS BETTER
DatePublished DATE,
Description LONGTEXT,      # change to LONGTEXT because the text is too long      by LinLi
Images LONGTEXT,           # change to LONGTEXT because the text is too long      by LinLi
Calories DECIMAL (10, 2),
FatContent DECIMAL (10, 2),
SaturatedFatContent DECIMAL (10, 2),
CholesterolContent DECIMAL (10, 2),
SodiumContent DECIMAL (10, 2),
CarbohydrateContent DECIMAL (10, 2),
FiberContent DECIMAL (10, 2),
SugarContent DECIMAL (10, 2),
ProteinContent DECIMAL (10, 2),
RecipeServings DECIMAL (10, 2),
RecipeInstructions LONGTEXT,
CONSTRAINT pk_Recipes_RecipeID
        PRIMARY KEY(RecipeID)
);

```

```

CREATE TABLE KeywordInRecipe (
        KeywordRecipeID INT AUTO_INCREMENT,
        KeywordName VARCHAR(255),
        RecipeID INT,
        CONSTRAINT pk_KeywordInRecipe_KeywordRecipeID
                PRIMARY KEY (KeywordRecipeID),
        CONSTRAINT fk_KeywordInRecipe_KeywordName
                FOREIGN KEY (KeywordName)
                REFERENCES Keywords(KeywordName)
        ON UPDATE CASCADE ON DELETE CASCADE,
        CONSTRAINT fk_KeywordInRecipe_RecipeID
                FOREIGN KEY (RecipeID)
                REFERENCES Recipes(RecipeID)
        ON UPDATE CASCADE ON DELETE CASCADE
);

```

```

CREATE TABLE RecipeIngredients (
        RecipeIngredientID INT AUTO_INCREMENT,
        RecipeID INT,
        IngredientName VARCHAR(255),
        Quantity VARCHAR(255),      # changed
        CONSTRAINT pk_RecipeIngredients_RecipeIngredientID
                PRIMARY KEY (RecipeIngredientID),
        CONSTRAINT fk_RecipeIngredients_RecipeID

```

```

        FOREIGN KEY (RecipeID)
REFERENCES Recipes(RecipeID)
ON UPDATE CASCADE ON DELETE CASCADE,
        CONSTRAINT fk_RecipeIngredients_IngredientName
        FOREIGN KEY (IngredientName)
REFERENCES Ingredients(IngredientName)
ON UPDATE CASCADE ON DELETE CASCADE
);

```

```

CREATE TABLE Users (
    UserName VARCHAR(255),
    FirstName VARCHAR(255),
    LastName VARCHAR(255),
    Email VARCHAR(255),
    CONSTRAINT pk_Users_UserName
        PRIMARY KEY(UserName)
);

```

```

CREATE TABLE SavedRecipes (
    SavedRecipeID INT AUTO_INCREMENT,
    RecipeID INT,
    UserName VARCHAR(255),
    RecommendedByCookEasy bool,
    CONSTRAINT pk_SavedRecipes_SavedRecipeID
        PRIMARY KEY(SavedRecipeID),
    CONSTRAINT fk_SavedRecipes_RecipeID
        FOREIGN KEY(RecipeID)
REFERENCES Recipes(RecipeID)
ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT fk_SavedRecipes_UserName
        FOREIGN KEY(UserName)
REFERENCES Users(UserName)
ON UPDATE CASCADE ON DELETE CASCADE
);

```

```

CREATE TABLE Ratings (
    RatingID INT,
    RecipeID INT,
    UserName VARCHAR(255),
    Difficulty DECIMAL (2, 1),
    Cost DECIMAL (2, 1),
    Taste DECIMAL (2, 1),
    Time DECIMAL (2, 1),
    CONSTRAINT pk_Ratings_RatingID
        PRIMARY KEY(RatingID),

```

```

        CONSTRAINT fk_Ratings_RecipeID
        FOREIGN KEY(RecipeID)
REFERENCES Recipes(RecipeID)
ON UPDATE CASCADE ON DELETE CASCADE,
        CONSTRAINT fk_Ratings_UserName
        FOREIGN KEY(UserName)
REFERENCES Users(UserName)
ON UPDATE CASCADE ON DELETE SET NULL
);

```

```

CREATE TABLE Recommendation (
    RecommendationId INT,
    RecipeId INT,
    UserName VARCHAR(255),
    CONSTRAINT pk_Recommendation_RecommendationID
        PRIMARY KEY (RecommendationID),
    CONSTRAINT fk_Recommendation_RecipeID
        FOREIGN KEY (RecipeID)
REFERENCES Recipes(RecipeID)
ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT fk_Recommendation_UserName
        FOREIGN KEY (UserName)
REFERENCES Users(UserName)
ON UPDATE CASCADE ON DELETE SET NULL
);

```

```

CREATE TABLE Reviews (
    ReviewId INT,
    UserName VARCHAR(255),
    RecipeId INT,
    Content VARCHAR(255),
    Created TIMESTAMP,
    CONSTRAINT pk_Reviews_ReviewID
        PRIMARY KEY (ReviewID),
    CONSTRAINT fk_Reviews_UserName
        FOREIGN KEY (UserName)
REFERENCES Users(UserName)
ON UPDATE CASCADE ON DELETE SET NULL,
    CONSTRAINT fk_Reviews_RecipeID
        FOREIGN KEY (RecipeID)
REFERENCES Recipes(RecipeID)
ON UPDATE CASCADE ON DELETE CASCADE
);

```

Insert Data:

load data for recipes

```
LOAD DATA INFILE 'path/recipes_0.csv'
    INTO TABLE Recipes
    FIELDS TERMINATED BY ';' OPTIONALLY ENCLOSED BY '"'
    LINES TERMINATED BY '\n'
    IGNORE 1 LINES
    (RecipeID, RecipeName, @dummy, @dummy, CookTime, PrepTime, @dummy, @val1,
    Description, Images, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, Calories,
    FatContent, SaturatedFatContent, CholesterolContent, SodiumContent, CarbohydrateContent,
    FiberContent, SugarContent, ProteinContent, @valServ, @dummy, RecipeInstructions)
    SET DatePublished = substr(@val1, 1, 10);
```

load data for keywords

```
LOAD DATA INFILE "path/keywords_0.csv"
    INTO TABLE Keywords
    FIELDS TERMINATED BY ';'
    LINES TERMINATED BY '\n'
    (KeywordName);
```

load data for ingredients

```
LOAD DATA INFILE "path/ingredients_0.csv"
    INTO TABLE Ingredients
    FIELDS TERMINATED BY ';'
    LINES TERMINATED BY '\n'
    (IngredientName);
```

load data for recipe_keywords

```
LOAD DATA INFILE "path/recipe_keywords_0.csv"
    INTO TABLE KeywordInRecipe
    FIELDS TERMINATED BY ';'
    LINES TERMINATED BY '\n'
    (RecipeID, KeywordName);
```

load data for recipe_ingredients

recipe_ingredients_0 contains lots of data, if cannot load data directly from recipe_ingredients_0, try

recipe_ingredients_0_0 to recipe_ingredients_0_7, where I split the data into 7 smaller files

```
LOAD DATA INFILE "path/recipe_ingredients_0.csv"
    INTO TABLE RecipeIngredients
    FIELDS TERMINATED BY ';'
    LINES TERMINATED BY '\n'
    IGNORE 1 LINES
    (RecipeID, Quantity, IngredientName);
```

Screenshot:

The screenshot shows a data application interface. The top section displays a table of recipes with columns: RecipeID, RecipeName, PrepTime, CookTime, DatePublished, Description, Images, Calories, FatContent, SaturatedFatContent, and CholesterolContent. The table lists 20 recipes, including Totten Inlet Oyster Stew, Slow Cooker Chicken Cacciatore, Pico De Gallo With Cactus, California White Bread, Salt Dough, Chicken Julian, Classic Rice Pudding, Soicy Tartar Sauce, Barbecue Shrimp Orleans, Saucy Pork Chops, Cheesv Hash Browns, Stuffed Pork Roast, Vietnamese Chicken, Stuffed Chicken Breast W/feta Cheese, Zucchini, Bacon, Onion and Cream Side Dish, Chili Con Carne (colorado), The Easiest Cheesest Potato Soup, Hidden Valley Ranch Chicken, Awesome and Simple Italian Garlicky Meatloaf, Creamy Pasta With Chicken and Broccoli, Meatloaf With Cream of Mushroom, Beef and Mushroom on Endive, Bun Bo Hue (Soicy Hue Stvie Noodle Soup ...), Rav'n Ravioli, Pink Lemonade Merinaue Pie, (Two-Lever) Chocolate Chip Pie, 15 Minute Chicken, Broccoli and Rice Dinn..., and Apple Crumble. The bottom section shows a query editor with the SQL query: `SELECT COUNT(*) FROM Recipes;` and a result grid showing the count: 200000.

RecipeID	RecipeName	PrepTime	CookTime	DatePublished	Description	Images	Calories	FatContent	SaturatedFatContent	CholesterolContent
113753	Totten Inlet Oyster Stew	PT20M	PT10M	2005-03-20	This was submitted and published in the Americ...	character(0)	1071.20	97.10	58.00	458.70
113754	Slow Cooker Chicken Cacciatore	PT20M	PT7H	2005-03-20	This recioe came from the Crock Pot website bu...	character(0)	611.20	12.00	2.30	197.50
113755	Pico De Gallo With Cactus	PT15M	NA	2005-03-20	This is a recioe from mv grandmother. There isn't...	character(0)	56.80	0.60	0.10	0.00
113756	California White Bread	PT10M	PT3H	2005-03-20	This recioe came from mv Uncle. He baked it for...	character(0)	2401.50	42.90	24.40	116.60
113757	Salt Dough	PT1H	PT1H	2005-03-20	Make and share this Salt Dough recioe from Foo...	c"https://lmo.sndimo.com/food/maoe/uload/...	19.00	0.10	0.00	0.00
113758	Chicken Julian	PT10M	PT20M	2005-03-20	This is a delicious recioe that mv sister and I sta...	character(0)	1661.50	93.10	49.40	413.90
113759	Classic Rice Pudding	PT15M	PT30M	2005-03-20	Make and share this Classic Rice Pudding recioe ...	character(0)	242.50	8.70	4.50	135.60
113760	Soicy Tartar Sauce	PT5M	NA	2005-03-20	This recioe is great for people who don't have a...	character(0)	319.70	26.20	3.90	20.40
113761	Barbecue Shrimp Orleans	PT25M	PT8M	2005-03-20	Make and share this Barbecue Shrimp Orleans r...	character(0)	2059.20	197.60	118.70	833.70
113762	Saucy Pork Chops	PT15M	PT1H	2005-03-20	Make and share this Saucy Pork Chops recioe fr...	character(0)	348.10	20.20	6.60	83.20
113763	Cheesv Hash Browns	PT10M	PT1H	2005-03-21	It's basicallv iust hashbrowns with cheese and ...	character(0)	317.40	19.20	8.40	21.90
113764	Stuffed Pork Roast	PT15M	PT2H30M	2005-03-21	Great if made in the oven or bar-b-que! The c...	character(0)	829.30	28.80	9.90	357.20
113765	Vietnamese Chicken	PT20M	PT45M	2005-03-21	I oot this recioe from a familv friend, but it's a o...	c"https://lmo.sndimo.com/food/maoe/uload/...	374.10	25.90	11.30	109.50
113766	Stuffed Chicken Breast W/feta Cheese	PT15M	PT45M	2005-03-21	I saw this recioe on a PBS channel here in CA. ...	character(0)	324.50	18.80	7.60	115.00
113767	Zucchini, Bacon, Onion and Cream Side Dish	PT5M	PT12M	2005-03-21	I admit I have no idea where mv Mum found thi...	character(0)	238.20	20.50	9.70	50.80
113768	Chili Con Carne (colorado)	PT30M	PT30M	2005-03-21	I oot the basic recioe from a book called Authe...	character(0)	435.10	30.10	12.10	104.50
113770	The Easiest Cheesest Potato Soup	PT20M	PT4H	2005-03-21	I am a mother of 3 young toddlers and LOVE to ...	character(0)	515.90	23.80	14.50	73.70
113771	Hidden Valley Ranch Chicken	PT20M	PT35M	2005-03-21	I oot this recioe from the back of a bottle of Hid...	c"https://lmo.sndimo.com/food/maoe/uload/...	350.90	23.20	6.10	100.20
113772	Awsome and Simple Italian Garlicky Meatloaf	PT10M	PT1H10M	2005-03-21	This meat loaf is so flavorfvl, but doesn't requir...	c"https://lmo.sndimo.com/food/maoe/uload/...	415.00	26.30	10.40	169.40
113773	Creamy Pasta With Chicken and Broccoli	PT20M	PT25M	2005-03-21	A delicious combination of chicken, broccoli, mus...	c"https://lmo.sndimo.com/food/maoe/uload/...	608.00	11.70	5.50	78.90
113774	Meatloaf With Cream of Mushroom	PT10M	PT1H30M	2005-03-21	Make and share this Meatloaf With Cream of M...	character(0)	489.20	31.40	11.40	168.50
113775	Beef and Mushroom on Endive	PT2H	PT25M	2005-03-21	Generaliv, the middle of the week is the time I h...	character(0)	1566.00	150.40	42.90	158.90
113776	Bun Bo Hue (Soicy Hue Stvie Noodle Soup ...)	PT3H	PT20M	2005-03-21	Mv parents are from Hue. Although growino up ...	c"https://lmo.sndimo.com/food/maoe/uload/...	351.50	3.70	1.20	23.80
113777	Rav'n Ravioli	PT15M	PT15M	2005-03-21	I oot this from a Pampered Chef cookbook and t...	character(0)	198.50	9.70	3.90	19.10
113778	Pink Lemonade Merinaue Pie	PT3H	PT3H	2005-03-21	This was a favorite of mine growino up. Not s...	character(0)	272.60	10.00	3.30	9.10
113779	(Two-Lever) Chocolate Chip Pie	PT20M	PT25M	2005-03-21	Reallv easv to make and full of chocolate. Peopl...	character(0)	327.70	15.10	5.50	22.80
113780	15 Minute Chicken, Broccoli and Rice Dinn...	PT10M	PT5M	2005-03-21	Make and share this 15 Minute Chicken, Broccoli...	character(0)	501.60	9.80	2.20	74.50
113781	Apple Crumble	PT30M	PT30M	2005-03-21	Make and share this Apple Crumble recioe from ...	character(0)	365.30	16.60	10.30	42.70

26 • SELECT COUNT(*) FROM Recipes;

Result Grid
COUNT(*)
200000

Result 2 x

Output

Action Output

#	Time	Action	Message
✓ 154	14:52:27	USE CookEasyDatabase	0 row(s) affected
✓ 155	14:52:30	SELECT COUNT(*) FROM Recipes LIMIT 0, 1000	1 row(s) returned

Datasets:

https://drive.google.com/drive/folders/1BdFIHJfqwyg_ikq_YONyYufp5aVTn73R?usp=sharing