Food Saver

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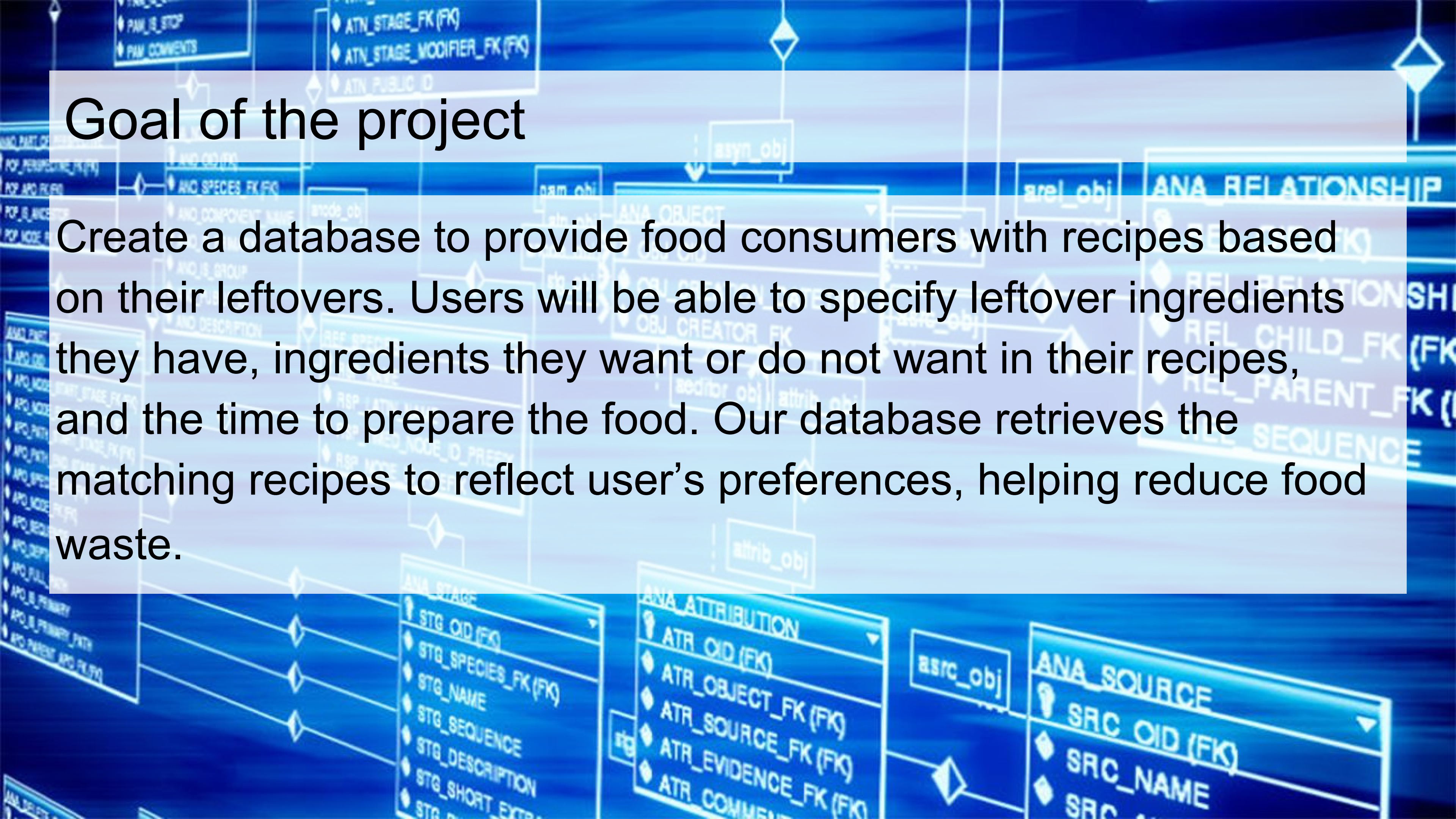
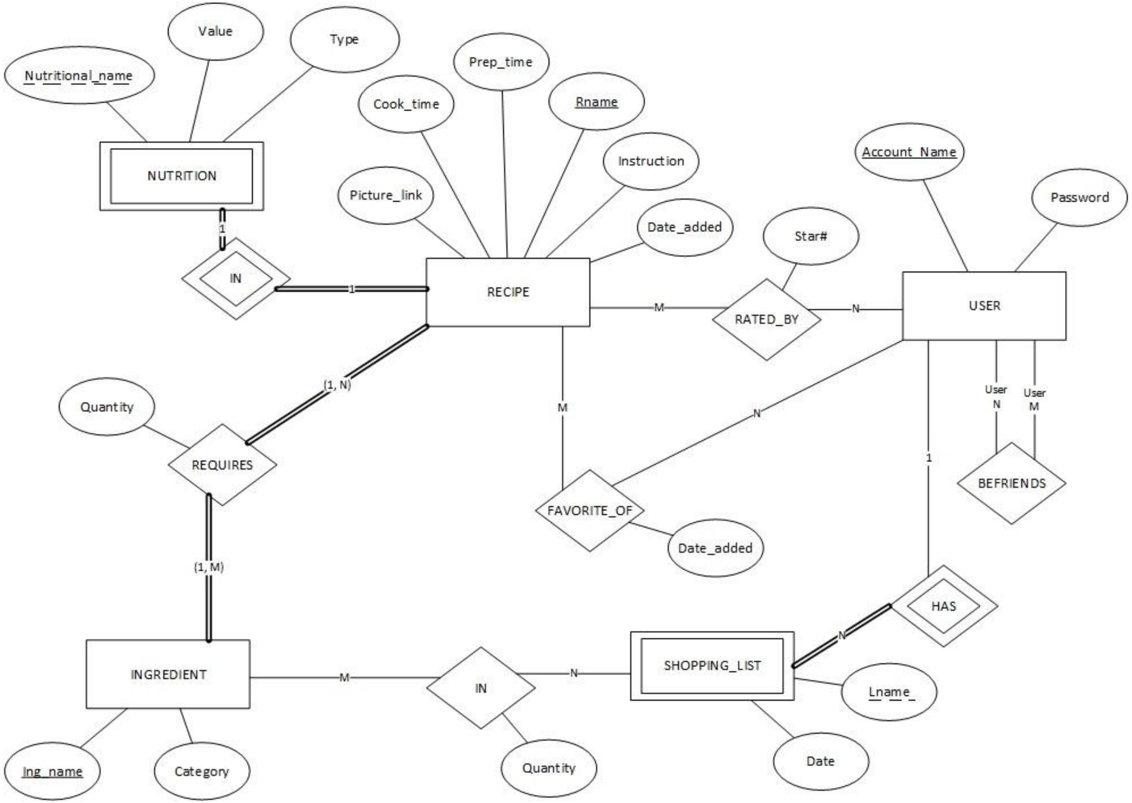


Goal of the project

Create a database to provide food consumers with recipes based on their leftovers. Users will be able to specify leftover ingredients they have, ingredients they want or do not want in their recipes, and the time to prepare the food. Our database retrieves the matching recipes to reflect user’s preferences, helping reduce food waste.

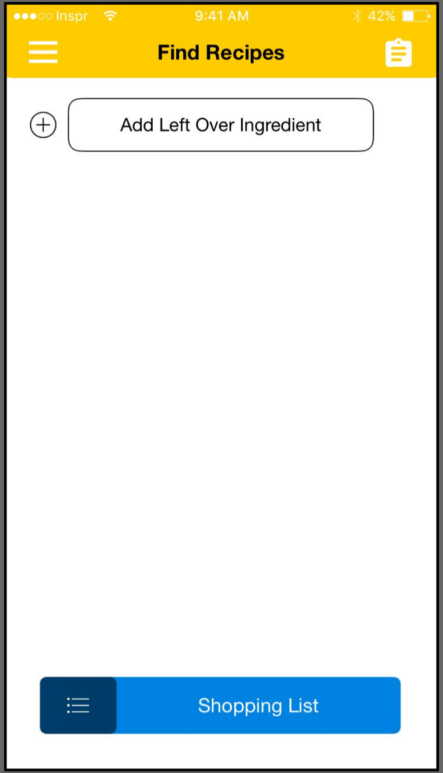
Database Design

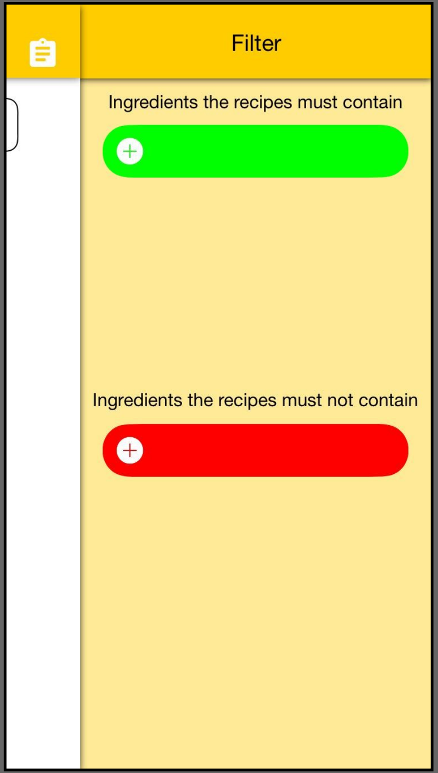


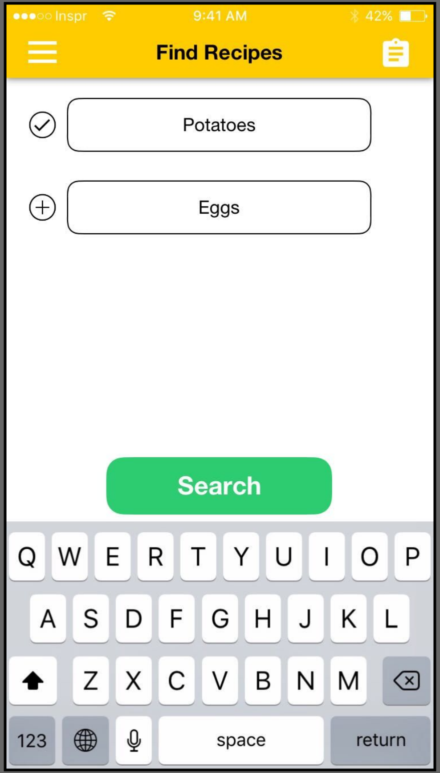
Normalization

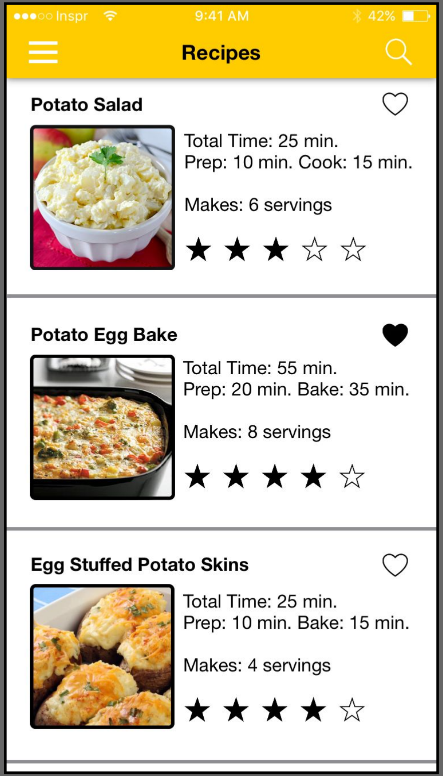
Table Name	Information Stored in the Table	Normal Form
FAVORITE	Stores user’s favorite recipes, and the date the recipe was added.	BCNF
FRIEND	Stores the username of a friend.	BCNF
INGREDIENT	Stores ingredient name and ites respective category.	BCNF
NUTRITION	Stores nutritional values of the recipe and the respective measurement units.	BCNF
RATING	Stores the number of stars given to the recipe along with the user who gave the rating.	BCNF
RECIPE	Stores the name of the recipe, cook and preparation times, link to a picture, instructions and the date the recipe was added.	BCNF
RECIPE_CONTENT	Stores the recipe name, ingredients within the recipe and the quantity.	BCNF
SHOPPING_LIST	Stores the name of the list, date it was added, and the account name to whom it belongs.	BCNF
SHOPPING_LIST_CONTENT	Stores the name of the list, account name to whom it belongs, ingredient name and the quantity needed of the corresponding ingredient.	BCNF
USER	Stores the user’s name and their password.	BCNF

Mobile Mockups




Filter
Ingredients the recipes must contain
Ingredients the recipes must not contain





Potato Salad

Total Time: 25 min.
Prep: 10 min. Cook: 15 min.

Makes: 6 servings

★ ★ ★ ☆ ☆

Potato Egg Bake

Total Time: 55 min.
Prep: 20 min. Bake: 35 min.

Makes: 8 servings

★ ★ ★ ★ ☆

Egg Stuffed Potato Skins

Total Time: 25 min.
Prep: 10 min. Bake: 15 min.

Makes: 4 servings

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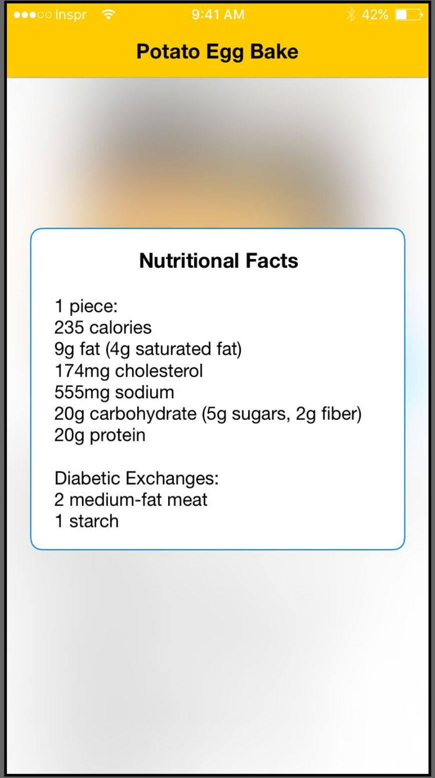
Mobile Mockups



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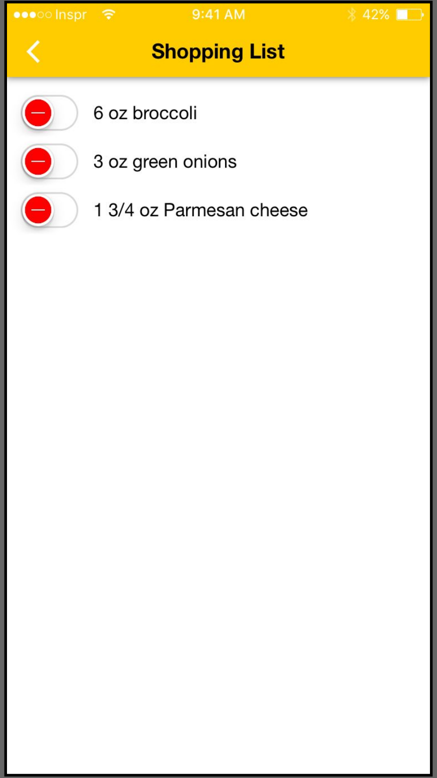
Potato Egg Bake

Nutritional Facts

1 piece:
235 calories
9g fat (4g saturated fat)
174mg cholesterol
555mg sodium
20g carbohydrate (5g sugars, 2g fiber)
20g protein

Diabetic Exchanges:
2 medium-fat meat
1 starch



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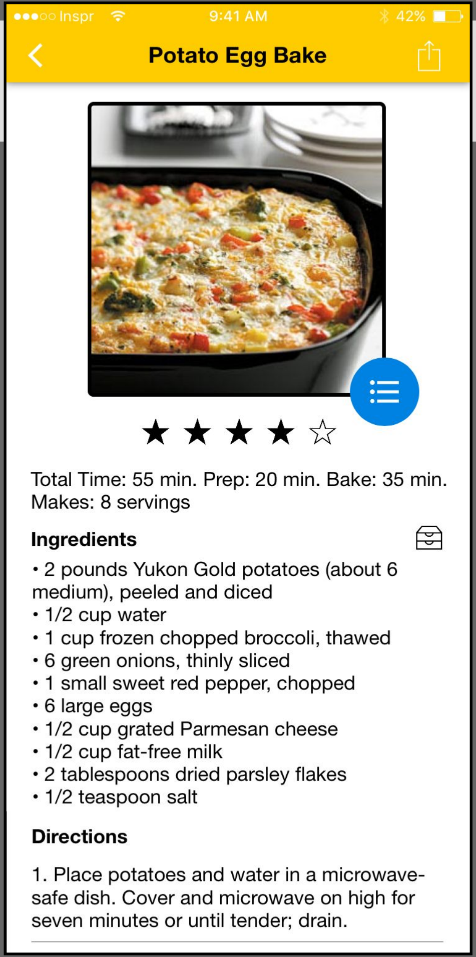
Shopping List

- ⊖ 6 oz broccoli
- ⊖ 3 oz green onions
- ⊖ 1 3/4 oz Parmesan cheese



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Potato Egg Bake

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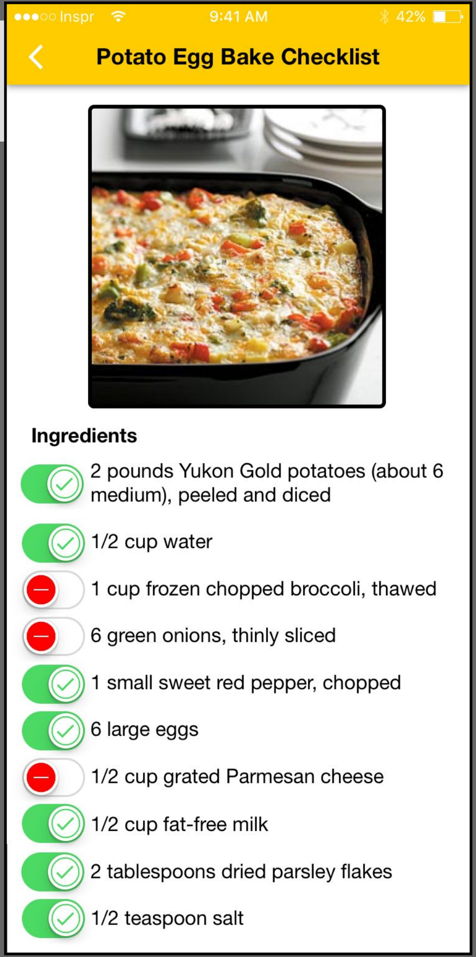
Total Time: 55 min. Prep: 20 min. Bake: 35 min.
Makes: 8 servings

Ingredients

- 2 pounds Yukon Gold potatoes (about 6 medium), peeled and diced
- 1/2 cup water
- 1 cup frozen chopped broccoli, thawed
- 6 green onions, thinly sliced
- 1 small sweet red pepper, chopped
- 6 large eggs
- 1/2 cup grated Parmesan cheese
- 1/2 cup fat-free milk
- 2 tablespoons dried parsley flakes
- 1/2 teaspoon salt

Directions

1. Place potatoes and water in a microwave-safe dish. Cover and microwave on high for seven minutes or until tender; drain.



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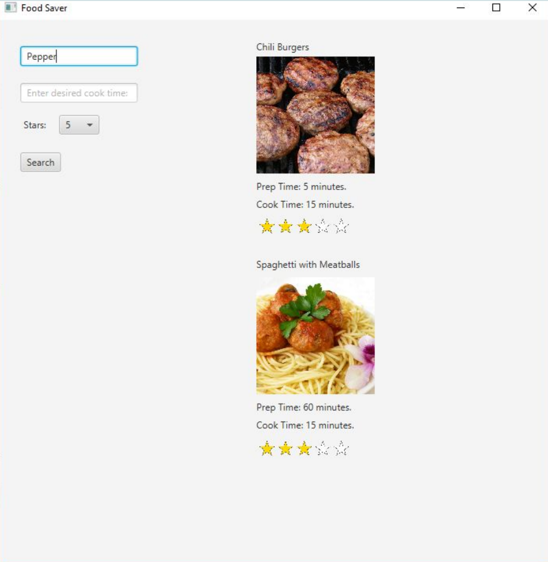
Potato Egg Bake Checklist

Ingredients

- ✓ 2 pounds Yukon Gold potatoes (about 6 medium), peeled and diced
- ✓ 1/2 cup water
- ⊖ 1 cup frozen chopped broccoli, thawed
- ⊖ 6 green onions, thinly sliced
- ✓ 1 small sweet red pepper, chopped
- ✓ 6 large eggs
- ⊖ 1/2 cup grated Parmesan cheese
- ✓ 1/2 cup fat-free milk
- ✓ 2 tablespoons dried parsley flakes
- ✓ 1/2 teaspoon salt

Computer Graphical User Interface



Pepper

Enter desired cook time:

Stars: 5

Chili Burgers

Prep Time: 5 minutes.

Cook Time: 15 minutes.

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Spaghetti with Meatballs

Prep Time: 60 minutes.

Cook Time: 15 minutes.

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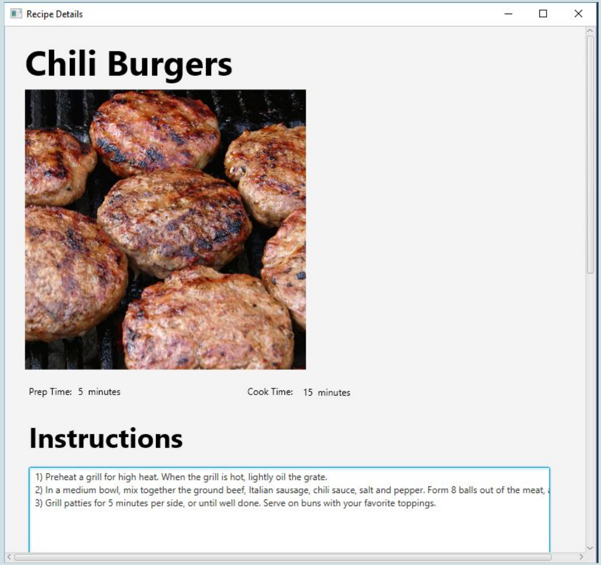
Search Screen



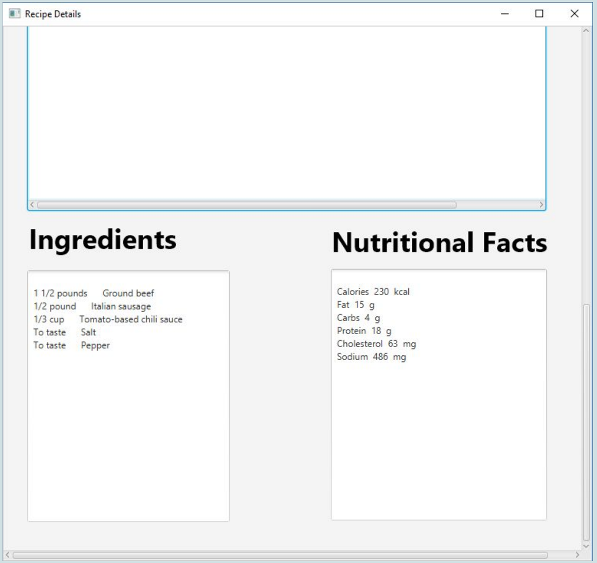
Chili Burgers

Prep Time: 5 minutes

Cook Time: 15 minutes

Instructions

1) Preheat a grill for high heat. When the grill is hot, lightly oil the grate.
2) In a medium bowl, mix together the ground beef, Italian sausage, chili sauce, salt and pepper. Form 8 balls out of the meat, a
3) Grill patties for 5 minutes per side, or until well done. Serve on buns with your favorite toppings.



Ingredients

1 1/2 pounds	Ground beef
1/2 pound	Italian sausage
1/3 cup	Tomato-based chili sauce
To taste	Salt
To taste	Pepper

Nutritional Facts

Calories	230	kcal
Fat	15	g
Carbs	4	g
Protein	18	g
Cholesterol	63	mg
Sodium	486	mg

Details Screen

Effort Spent Overall

- Designing the database.
- Testing the normal forms of our tables.
- Correcting the ER diagram and relational map with new updates.
- Writing and combining multiple SQL scripts from team members.
- Dealing with SQL syntax errors.
- Working on a JavaFX prototype GUI.
- Integrating local database with another application.
- Creating and providing deliverables.

What went right?

- Designing Entity-Relationship Diagram.
- Mapping Relational Data Model.
- Normalizing all of the functional dependencies.

What went wrong?

- Each of our team members populated the database with at least three recipes. Due to not utilizing a repository, when we merged all the data on one computer, we were experiencing various errors.
- Time-management failure to complete the JavaFX GUI.
- Unable to embed the database into an executable JavaFX jar file. Can only run using IntelliJ IDEA IDE.

What would be done different if done again?

- More functions for user.
- Use a repository for the SQL code.
- Embed database file in a GUI application.
- Provide search filters for queries in the GUI application