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cs340 Project step 2 draft
7/10/18

Feedback

There has been no additional feedback since I turned in the final version of my project outline. I did however make some small changes by specifying that the contributor and date contributed attribute of the recipe entity should not be null. Below is the updated outline.

Recipe Database

Project Outline

For this project, I am going to create a database of cooking recipes to drive a website for sharing recipes. The database will allow the user to look up recipes and find the necessary ingredients, cookware and health information. The user will also be able to contribute their own recipes to the site. The website will allow users to search for healthy recipes or search by meal type, ethnic cuisine, or contributor. In this document users are sometimes refered to as contributors, but non contributing users will be able to use the site to search and save recipes as well.

Database Outline

The entities in the database are:

Recipes: Recipes are the key entities for this database. The have relationships with all of the other entities. Their attributes include:

- **Id**: This will be a not null, auto incremented integer to uniquely identify each recipe in the database. This will be the primary key
- **Name**: This will be the name of the recipe. It will be a string with a max length of 255 characters. This cannot be null.
- **Instructions**: This attribute will be a varchar(max) providing cooking instructions for the recipe. This cannot be null.
- **Meal Type**: This will provide the recipes meal type. Options will include breakfast, Lunch, Dinner, Desert, Appetizer, Snack. This attribute will allow users to search by meal type.
- **Ethnic cuisine**: This will provide any specific ethnic cuisine the recipe may belong too. This will allow users to search by ethnic cuisine.
- **Contributor**: This attribute will provide the Id of the user that contributed the recipe. This cannot be null.
- **Date Contributed**: This attribute will provide the date contributed. Its data type will be a date. This cannot be null.

Ingredients:

- **Id**: This will be a not null, auto incremented integer to uniquely identify each ingredient in the database. This will be the primary key.
- **Name**: This attribute will be a string of max length 255 that provides the name of the ingredient. This cannot be null.
- **Calories**: This attribute will contain the number of calories in the ingredient. It will be an integer. This cannot be null.
- **Fat**: This attribute will contain the amount of fat in the ingredient. It will be and integer. This cannot be null.

- **Sodium**: This attribute will contain the amount of sodium in an ingredient. It will be an integer. This cannot be null.
- **Sugar**: This attribute will contain the amount of sugar in the ingredient. It will be an integer. This cannot be null.
- **Protein**: This attribute will contain the amount of protein in the ingredient. It will be an integer. This cannot be null.
- **Vitamin A**: This attribute will contain the amount of vitamin A in the ingredient. It will be an integer. This cannot be null.
- **Vitamin C**: This attribute will contain the amount of vitamin C in the ingredient. It will be an integer: This cannot be null.

Cookware:

- **Id**: This will be a not null, auto incremented integer to uniquely identify all cookware in the database. This will be the primary key.
- **Name**: This is the name of the cooking item. It will be a string of max length 255. This cannot be null.
- **Cost**: This attribute will contain the cost of the cooking item. Its data type will be small money.

User/Contributor:

- **Id**: This will be a not null, auto incremented integer to uniquely identify each contributor in the database. This will be the primary key.
- **First name**: This will be the user's first name. It will be a string of max length 255. This cannot be null.
- **Last name**: This will be the user's last name. It will be a string of max length 255. This cannot be null.
- **User name**: This will be the user's user name. It will be a string of max length 255 characters. This cannot be null.
- **Password**: This will be the user's password. It will be a string of max length 255 characters. This cannot be null.
- **Email**: This will be the user's email. It will be a string of max length 255. This cannot be null.
- **Cooking Experience**: This will be an optional attribute for the user to enter their cooking experience if any. This will be a varchar(max);

The relationships in the database are:

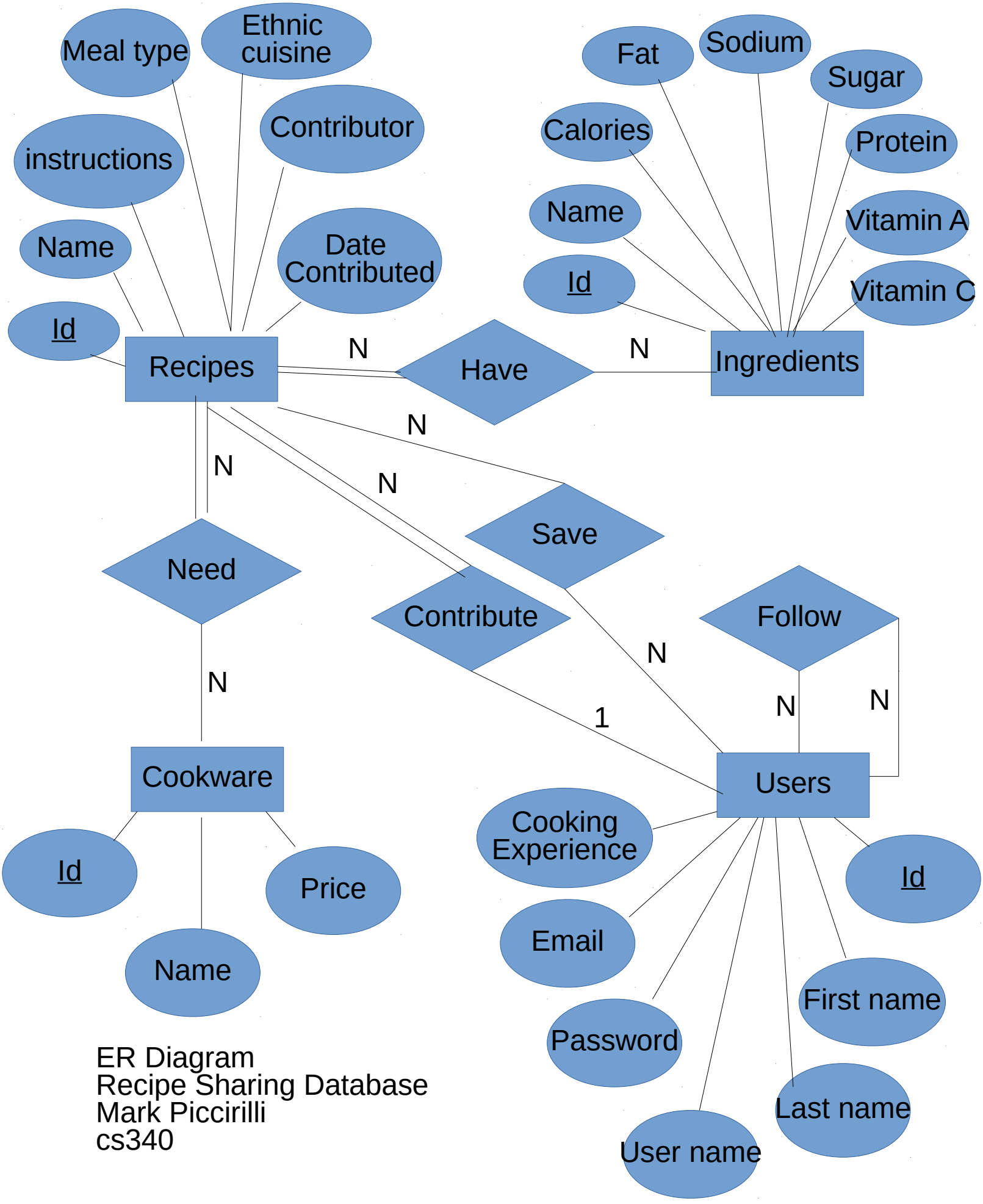
Recipes have ingredients: This is a *many to many* relationship. Many recipes have many ingredients and many ingredients are used in many different recipes. This relationship will require its own table.

Recipes have cookware: This is a *many to many* relationship. Many recipes use a lot of cookware and different cookware is used in many different recipes. This relationship will require its own table.

Users contribute recipes: This is a *one to many* relationship because one contributor can contribute to many recipes but each recipe only has one contributor.

Users follow other users: Like social networking a user can follow other user and receive notice when a user they follow has posted a new recipe. This is a *many to many* relationship because a user can be followed by many other users, and a user can follow many other users. This relationship will require its own table.

Users save recipes: Users can save recipes so that they can go back to the later. This is a *many to many* relationship because one user can save many recipes and on recipe can be saved by many users. This relationship will require its own table.



ER Diagram
Recipe Sharing Database
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Schema
Recipe database
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