

CS3200 Database Design Final Project - Restaurant Database

Problem Statement

When visiting a new or even a familiar restaurant, on a high level, customers want to know what the restaurant serves and which menu item to order. In making the decision on which dish to eat, customers want to know the ingredients that go into creating the dish to make sure they avoid menu items that they simply dislike or cause allergies and upset other dietary restrictions. Furthermore, in an age when time is valuable, customers also want to be informed about the waiting time for each dish before making the final order decisions. To solve this essential problem restaurant customers face every day, we embarked on designing our restaurant database.

Solution Statement

To solve the routine task of the restaurant customers, we designed a database that records the dish served by the restaurant and ingredients that are needed for each dish. Before deciding which menu item to order, customers are provided with plenty of information such as the type, calories, price, ingredients, and ingredient prep time that facilitate their decisions. Given this information, customers will have a higher chance of choosing a dish that satisfies their dietary, schedule, and taste needs.

User

The user for our database is a user object representing a customer for the restaurant. A user has a first name, last name, username, password, and email all represented as strings. The user also has a date of birth, as well as a created and updated field which are stored as dates. The user can be interpreted as someone who is ordering at or from the restaurant, be it an online order or as a rewards member who signed up using their personal information.

Domain Objects

The first domain object of this database is a dish. A dish has a name represented as a string, a type which is a foreign-key string referring to the DishType enumeration, calories represented by an int, and a price represented as a float.

The second domain object is an ingredient. Ingredients have a string representing the name of the ingredient along with an int representing the preparation time needed to prepare the ingredient for any given dish.