

HW 1. UML Diagram

Submission Instructions

- Include your name on your solution.
- Submit as a PDF.
- Optionally, you may include a brief description of the assumptions you made if clarifications are necessary.

Assignment

Create a UML Diagram for a restaurant review website given the description below. Apply the concepts from Module 1. In your UML, be sure to include the class names, attributes, and attribute data types. Also include relationship annotations such as the relationship type and cardinality.

Users create a profile by choosing a unique username and a password. Furthermore, they must provide their first name, last name, email, and phone number. A user can provide credit card information for one or more cards. The credit card information includes the card number, and expiration date. If a user is deleted from the system, then their credit card information should be deleted, too.

As a generalization, Restaurants have a unique restaurant id, name, description, menu, listed hours, and an attribute indicating if the restaurant is still active or closed. A restaurant also has street1, street2, city, state, and zip attributes. Furthermore, a restaurant has a cuisine type, which must be one of the following values: african, american, asian, european, hispanic.

There are three kinds of specialized restaurants: sit down restaurants, which have a capacity attribute; take out restaurants, which have a max wait time attribute; and food cart restaurants, which have an attribute to identify if it is licensed or not.

Companies may own one or more restaurants. Companies have a unique company name. They must also provide a description of their company. (Assume that companies are completely different than users, i.e. no shared inheritance). If a company is deleted from the system, then the company's restaurants are not deleted.

Users can write reviews about restaurants. Any user can write a review for any restaurant. Reviews consist of a created timestamp, a written review, and a rating (for example 0.0 to 5.0). If a user or restaurant is deleted from the system, the reviews are not deleted.

Any user can also recommend any restaurant. The recommendations are not related to reviews. If a user or restaurant is deleted from the system, the recommendations are not deleted.

Any user can make reservations at any sit down restaurant. Reservations consist of a start timestamp, end timestamp, and party size. If a user or sit down restaurant is deleted from the system, then reservations are deleted, too.