HW 1. UML Diagram

Submission Instructions

- Include your name on your solution.
- Submit by 11:59PM on 05/24 BlackBoard 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 our lecture: http://goo.gl/CDWTvr. 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.