CS 336 Project Description
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Scheme: Food
Audience: Restaurant owners
Goal: Help restaurants raise customer satisfaction and profits

In addition to the core scheme, we have unique data about patrons' dietary restrictions (specifically, which ingredients they never consume), ingredients contained in items served by restaurants, and information associated with specific orders.

Key to our database is the relation "Order", which contains the key "order_id". With each order, we associate a patron, date, restaurant, and tip amount. Through the attribute "order_id", we can access the table "Ordered", which lists the items associated with each order, i.e., what the unique patron associated with that order_id ordered during that visit.

To use this information to help restaurants maximize profit, we introduce the "Customer Satisfaction Metric" (CSM), which is a number associated with each restaurant on each day that is a measure of how satisfied its customers were on that day. The CSM is a function of the size of the tips received at the restaurant, the number of customers the restaurant had, the amount of money customers spent, and the options that customers had when eating at that restaurant (i.e., if the restaurant serves mainly dishes that contain meat that day, then vegetarians who visited the restaurant that day may not have had many options, and hence lowering the CSM). We look for trends in the CSM that will indicate restaurant practices which result in higher CSM, and hence more happy and loyal customers and higher profits.