CS 123/231 Introduction to Software Engineering
1st Semester 2004-2005

Additional Specifications for the Restaurant System

You had a second interview with the restaurant owner. You showed him a use case diagram enumerating the six use cases and he agreed that these were the main functions he wants supported. However, he had a few comments:

1. "I want a feature that allows a supervisor to monitor the status of each table; in particular, the supervisor should be able to find out whether a table is occupied or not, and if it is occupied, whether food has been ordered, served, billed, or paid".
2. "My restaurant takes reservations. Customers would call ahead of time to indicate when they will arrive, but we will hold a table for just fifteen minutes; after which, it will be made available to other customers."
3. "Can I find out how many steaks I have sold for a given day? I need this kind of information for inventory purposes and also to find out which dishes are popular."

You also learn during the interview that tables are assigned to waiters once the restaurant opens at the start of the day, and it is possible for waiters to be assigned to other tables on another day. In addition, the following details are revealed:

1. The main users for this system are the waiters, although the supervisor is the one who generates the reports, monitors table status, takes reservations, and assigns groups to tables.
2. Table capacities need to be recorded, as well as the size of a group that occupies the table.
3. Service times (particularly the times between order, service, and payment) need to be recorded and reported, so that the supervisor can find out how well utilized the tables are during the day and also how efficient the waiters are.

Activity for Today

Produce the following:

1. A revised set of use cases, given the additional information provided.
2. A state diagram for the Table class, plus any state diagrams for other classes, that you find helpful in completing your use cases.
3. A list of clarification questions pertaining to the specifications you have received so far.

Submit 3. by the end of the class period. I will reply to these questions on Thursday.