My final project is a small-scale database for a hotel.

1. List of questions you want to be able to answer with this database (ie think about query design)

My database answers these questions:

* What rooms are currently available
* What a customer’s room number and floor number, and which employee signed them in
* What a customer’s total room tab is
* What meal is ordered the most

1. Explain where you plan to use triggers, events, procedures and functions

Functions:

* My first function, total\_for\_order2, multiplies the price of the meal ordered by the quantity (the number of times the meal was ordered)
* My second function, customer\_tab, retrieves the customer's order\_id and meal\_id via their first and last name. Then both ids are passed into as arguments for the first function (total\_for\_order2). In the end the user will just have to type in the first and last name of the customer to receive their total tab amount.

Procedures:

* My first procedure, addvisit, is for my inserts into the visit table. By the time I made this procedure, I already had all of my inserts for that table done, and I didn't want to delete all of that data and start from scratch. But all of my future inserts into the visit table will be done by this procedure. This procedure makes my inserts for the visit table a lot quicker and cleaner.
* My second procedure, update\_rooms\_availability, is used for updating the availability of a room in the room\_info table.
  + It has two updates going on. The first is checking if the check in date was earlier than today's date and if the check out date was later than today's date. If so, the availability will be set to "n".
  + The second update checks if both the check-in and check-out dates are earlier than today's date. It also checks if the check-in and check-out dates are both later than today's date. If any of these conditions are true for the room, the room's availability will be set to "y"
* The 3rd procedure (test\_event3) calls the update\_rooms\_availability procedure 15 times, 1 for each room. Since, in hotels, the number of rooms you have and their ids don't really change, I thought it was fine to call the 2nd procedure for each room\_id.
  + This procedure will be called inside an event so you can run this procedure if you don't want to wait for the event to go off because the event only goes off every hour

Triggers:

* My first trigger is a before insert trigger on the room\_info table. It checks if the room number entered is less than zero, an “error” message will be given to the user. This is also the case if the room number entered it greater than 300.
  + This hotel only has 300 rooms, so there can’t be room number: -2 or room number: 450. This trigger guards against this.
* My second trigger is a before insert trigger on the visit table. It makes sure that the number of days that is inserted isn’t less than 0. If it is, the number of days will automatically become 0. This trigger prevents users from entering illogical inserts such as -3 number of days.

Events:

* My event, room\_checker\_test, calls the test\_event3() procedure every hour. Once entered, this event will start on May 11th at 2:40AM. However, you can change this depending on the date and time you grade it.
  + This event will check and update the availability of each room depending on its check in/out dates and the current date. If the room is available, the availability in room\_info table will be “y”, if not, it will be “n”.

1. What are your reports?

* Both of my views are my reports. The first view/report will show the number of rooms currently available. That is a valuable report, because the hotel will be able to make timely decisions based on this report. Managers and directors will be able to see how successful and bust the hotel is.
* The second view/report is about the hotel’s food. It lists the meals the hotel offers along with how many times each meal was ordered. This is a great report to give to the Kitchen staff. They will be able to see which of their meals is most and least popular. The staff can then change their menu based on this report.

QUERIES

* Most of my queries are in my procedures, functions, inserts, and views.