

# Del Mar

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Databases

COMP 2650 – 07B

Prof. Thai

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## Restaurant Services

Del Mar is a cruise-line restaurant that offers a combination of Mexican food and seafood. Del Mar has a team of servers and bussers to wait on tables and offers a delivery service to a guest's room. Del Mar's kitchen is made up of a head Chef and multiple line cooks. Del Mar also offers bar seating and bartender service.

## Business Statement

Del Mar provides a wide range of products and services to our customers. Our products are focused on seafood and traditional Mexican food. We carry many different types of meat, including beef, chicken, pork, shrimp, clams, mussels, lobster, squid, oysters and more. These choices can be prepared in several traditional Mexican dishes. Our most popular Mexican meals are our quesadillas, burritos, tacos, enchiladas, and fajitas. We also serve pasta prepared with seafood or traditional Mexican ingredients. Our refreshments range from fountain drinks to alcoholic beverages, which can be served at the table or the bar.

Del Mar's business model requires a partnership with the cruise-liner, which gives access to the space for the restaurant. Beyond the agreement with the ship, we need to allocate some of our available space to dining, kitchen and storage areas.

Our dining area requires tables, plates, silverware, cups, chairs, and decorative lighting to achieve our intended atmosphere. Also in the dining area is the cash register and fountain machine for drinks sectioned off from the rest of the room. The dining room employees consist of 1 salaried manager to oversee the operations to handle customer and employee issues as well as ensure everyone's job is being done properly. The

manager will overlook the rest of the employees. Waiters and waitresses earn tip wages from the tables they are assigned to in addition to the minimum tipped wage requirements. Bussers earn an hourly wage in addition to a percentage of tips decided upon by the waiters and waitresses. A host or hostess is also required, who oversees seating customers and handling reservations, phone calls, and room service.

A bartender is a self-supervised part of our operation. The bar is in the main dining area, but the bar has its own register, cups, and soda machine. The bartender earns tips as well as a minimum tipped hourly wage.

The kitchen requires an oven, a stove, a grill, and a fridge for storage. The kitchen is also where the dishwasher will be located. The kitchen is supervised by a head chef, a salaried, managerial position. Head chefs deal with day-to-day issues and can make decisions about any special meals or the ingredients of a meal. The kitchen is made up of multiple hourly wage line cooks to follow the head chef's instructions and a dishwasher, who makes an hourly wage.

The food and ingredients that the restaurant requires are supplied by various suppliers. The restaurant has individual suppliers for seafood, meats, and general ingredients. The seafood products that are needed (shrimp, clam, mussels, lobster, octopus, squid, and oysters) and the required meat products (beef, steak, and chicken) are all frozen and received prior to the ship's departure. The general products that are needed (ingredients for baked goods, spices, other various necessities) are supplied prior to the ship's departure as well. The ship holds the necessary amount of product for the entirety of the ship's travel time (usually one week), and restocking is not necessary

until the ship returns to bay. There can only be one restaurant location on a ship at a time, and there are multiple locations across many ships. Each restaurant location has the same menu, and each restaurant is the same in all operations, including the same schedule, menu pricing, specials, and layout. The food is prepared at the time that the order is received to maintain freshness and quality. Orders that have a dietary restriction and/or allergy restriction are handled on an order-to-order basis and fulfilled to the restaurant's best ability. All ingredients are separate when they are received, so allergies are not an issue. Take out and room service is available at any time the kitchen is open, and the meals are prepared when the order is received. Take-out orders are picked up by the customer, and room service is given to the designated room service employees. Catering is available only upon request of the ship and is normally for events that take place outside the restaurant location. Servers that are employed by the restaurant are assigned to serve at these events and receive the same standard payment as they normally do. Employees can transfer from location to location but may only work at one location at any time. Employees have the right to quit as they so desire and are not hired with any time requirement.

Del Mar's operation costs are above a restaurant on mainland but is competitive for other cruise-based restaurants. The employees are paid an industry standard wage, but the partnership with the cruise-liner takes a percentage of our revenue in addition to the lease we pay for the space. The partnership with the cruise allows our employees to stay aboard the cruise at no additional cost to them. Although our costs are high, a cruise-ship's unique atmosphere leads to high profits. We do not have to spend money

on a parking lot for our customers, nor do we have to spend much on advertising because Del Mar is packaged with the experience of the cruise.

We allocate percentages of our revenue to restocking our supplies. A cruise-based business model means that Del Mar sees large waves of revenue while on a voyage, which can be used to resupply when the cruise is docked and reloaded with new passengers.

Because we are based in cruise-markets (where the weather is warm year-round), we do not have to worry about our seafood stock being affected by the weather.

Del Mar is a draw to potential employees because a vacation is packaged with the job. Each employee must live on the ship to attend work, so they are able to enjoy the cruise on their free time, which draws employees without the need to increase pay. Most of our employees are hourly full-time employees except the managerial positions, which require higher salaries to attract candidates because it inhibits long-term employees from settling down.

Del Mar's dining area is open every day from 12pm to 12am, and the bar is open daily from 5pm to 2am. Our peak hours are at dinner time, from 5pm to 8pm, and then another wave of business at the bar from 12am to 2am. Del Mar offers a variety of deals for ordering meals for a family or for a large group. Our prices run higher than a typical restaurant because our preparation and ingredient quality is great, and the customers are paying for the atmosphere as well. Some of our restaurants have live music, but all of them have scenic lighting and a great view of the ocean. Our dining room is full of natural and complementary lighting and traditional Mexican decorations, and we hold ourselves to a high standard of service.

Fridays, Saturdays, and Sundays are always busier than the rest of the days on average. The restaurant is located on a cruise ship, so the first and last days of the cruise cycle are days that are very busy and drive in a lot of new customers. Days tend to start slow and pick up towards dinner time, with peak hours being around 6 PM to 10 PM. All the customers that come to the restaurant are on vacation, so they tend to stay out much later and visit more frequently. The restaurant is not seasonal, so food is accessible all year round and the same menu items are offered every time a customer arrives. The cruise business is very popular during holiday seasons, which means the restaurant receives more customers during this time. These holiday seasons are when the restaurant is at peak customer attendance and capacity.

Del Mar has a few disadvantages compared to other restaurants, notably that the restaurant is only accessible through a cruise, so we cannot tap into a large group of people who have never taken a cruise. We also have the same pool of customers for weeks at a time (the duration of the trip), and the customers may not visit more than once per vacation. We also have the issue of having limited amounts of food. Since we travel away from our suppliers while the ship is in use, we need to wait to return before resupplying. We are prone to running out of supplies before the trip is over depending on how busy we are for the trip. The upside is that if we do run out of supplies, then we sold out and made more money than predicted.

## Data Modeling

### Entity List:

#### Restaurant

- Restaurant ID
- Location(State, Zip, Address)
- Phone Number
- Live Music?

#### Party

- Party ID
- Party Name
- No. of Guests
- Tables Needed
- Chairs Needed
- Bar?
- Takeout?

#### Expense

- Expense ID
- Amount Paid
- Expense Type

#### Employee

- Employee ID
- Name
- Age
- Phone Number
- Address(Street Number, Street Name)
- Employee Type

#### Beverage

- Beverage ID
- Name
- Price
- Size
- Alcoholic?

#### Taco

- Taco ID
- Hard or Soft Shell?
- {Topping}
- Meat?

#### Pasta Dish

- Pasta ID
- {Topping}
- Sauce
- Meat?
- Seafood?

#### Enchilada

- {Topping}
- Filling
- Sauce
- Meat?

#### Quesadilla

- Quesadilla ID
- {Topping}
- Shell Type
- Meat?

#### Dining

- Table ID
- Capacity
- Booth?

#### Supplier

- Supplier ID
- Phone Number
- Address
- Supplier Type

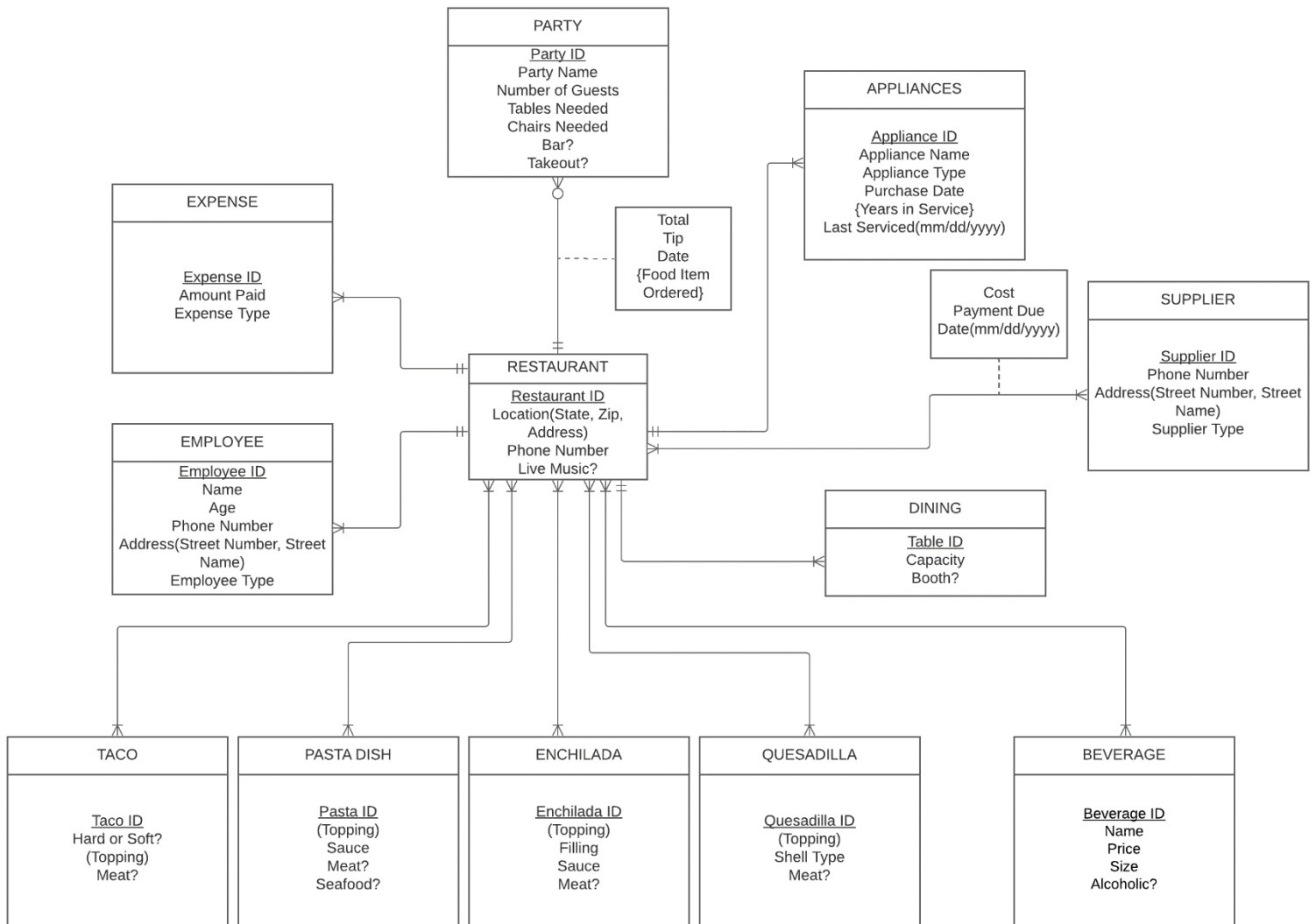
#### List of Relationships

- A restaurant serves many tacos.
- Tacos are served at one or more restaurants.
- A restaurant serves many pasta dishes.
- Pasta is served at one or more restaurants.
- A restaurant serves many enchiladas.
- Enchiladas are served at one or more restaurants.
- A restaurant serves many quesadillas

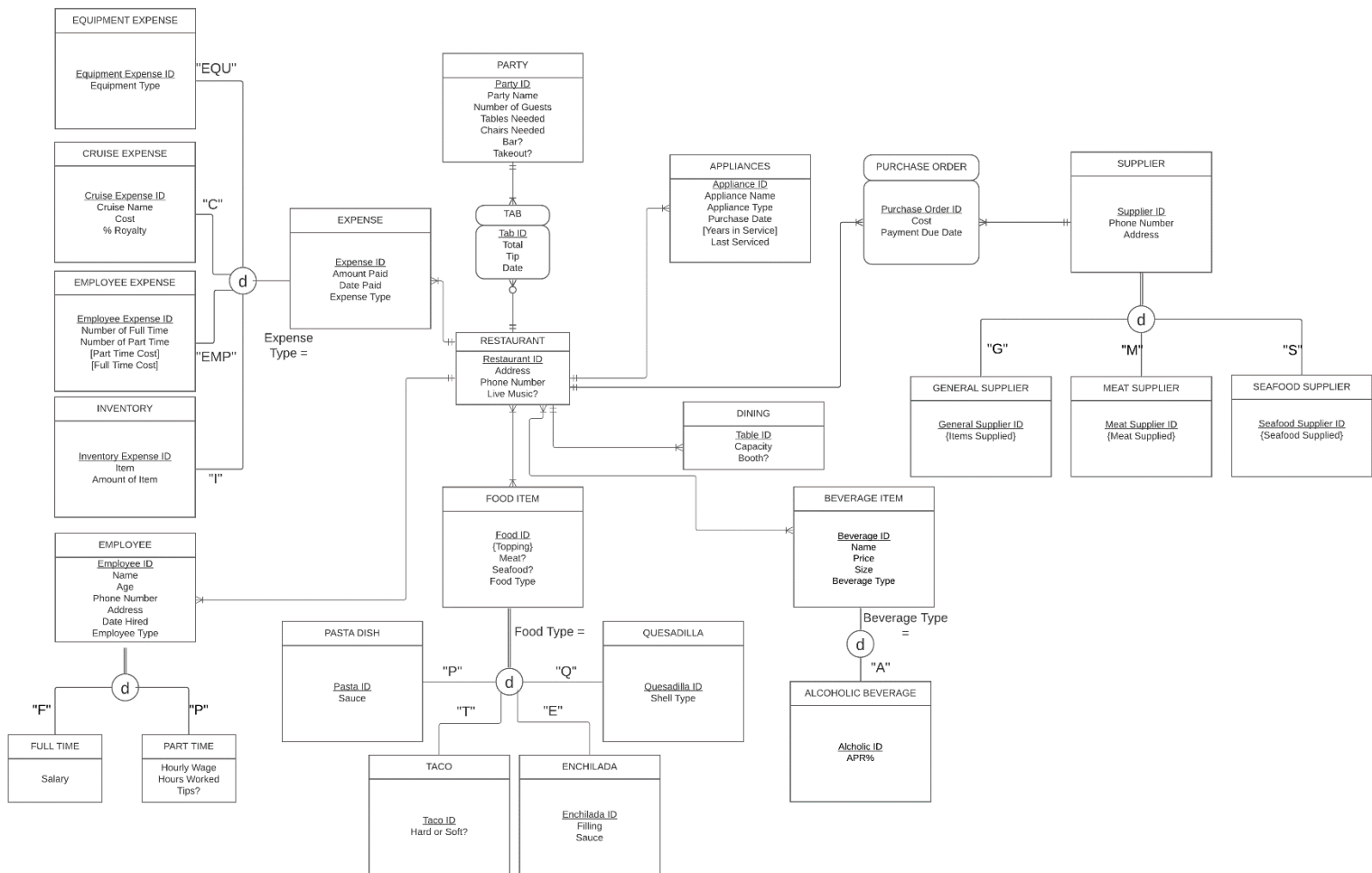


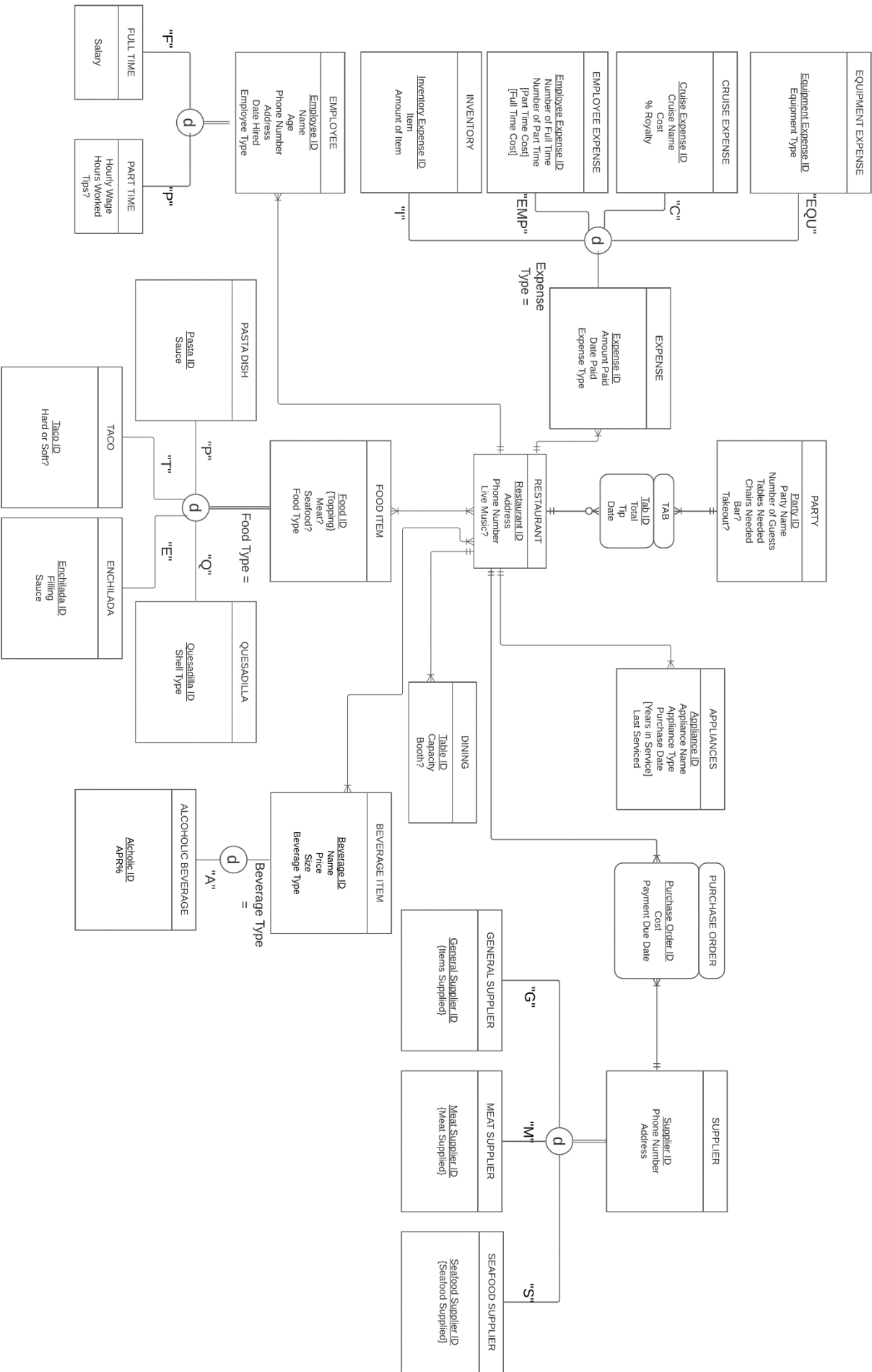
- Quesadillas are served at one or more restaurants.
- A restaurant serves many beverages.
- Beverages are served at one or more restaurants.
- A restaurant has many employees
- An employee works at one restaurant
- A restaurant may have many tabs open/parties to serve
- A tab is associated with only one restaurant
- A party may only have a tab open at one restaurant at a time
- A tab is associated with only 1 party
- A restaurant has many suppliers
- Suppliers supply to many restaurants.
- A restaurant has many appliances
- Appliances are used in one restaurant.
- A restaurant has many dining tables
- A dining table can only be in one restaurant
- A restaurant can make many purchase orders
- A purchase order can only be for 1 restaurant
- A restaurant has many expenses
- An expense applies to only 1 restaurant

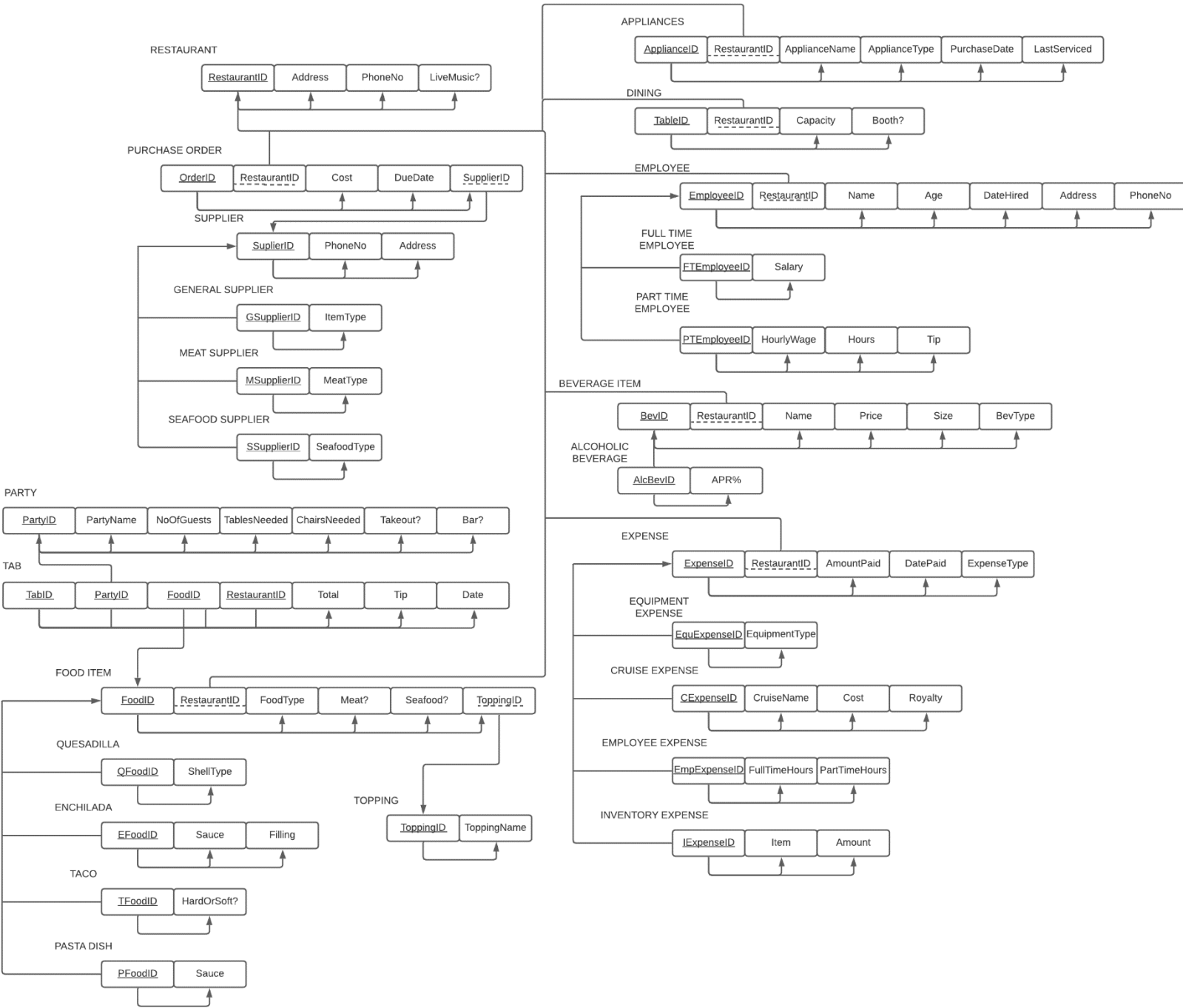
## ERD:



EERD (2 photos for legibility)







## Table Data:

comp2650\_connection x TACO\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	FOODID	TFOODID	HARDSHELL
1	1	1	0
2	2	2	0
3	3	3	1
4	4	4	0
5	5	5	1

comp2650\_connection x TAB\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	TABID	RESTAURANTID	PARTYID	TOTAL	TIP	DAY
1	1	1	1	10	10	08-APR-20
2	2	2	2	10	7	08-MAR-20
3	3	3	3	10	8	02-SEP-20
4	4	4	4	9	9	10-OCT-20
5	5	5	5	10	5	08-MAR-20

comp2650\_connection x SUPPLIER\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	SUPPLIERID	PHONENO	ADDRESS
1	1	7896564647	5 Durkio St.
2	2	2435647867	46 Krejci St
3	3	2536478765	63 Marchand Ave
4	4	1203647589	37 Bergeron Blvd.
5	5	1928390987	5 Litty St.

comp2650\_connection x S\_SUPPLIER\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	SSUPPLIERID	SUPPLIERID	ITEMNAME
1	1	1	Shrimp
2	2	2	Lobster
3	3	3	Clams
4	4	4	Muscles
5	5	5	Shrimp

comp2650\_connection x RESTAURANT\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	RESTAURANTID	ADDRESS	PHONENO	LIVEMUSIC
1	1	1 25 Main St.	7747777777	0
2	2	2 69 Nas X Blvd	7815324929	0
3	3	3 999 Juice St.	7815653453	0
4	4	4 25 Green St.	8676452345	0
5	5	5 12 Apple St.	1234567890	0

comp2650\_connection x QUESADILLA\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	FOODID	QFOODID	WHOLEGRAIN
1	1	1	0
2	2	2	0
3	3	3	1
4	4	4	0
5	5	5	1

comp2650\_connection x PURCHASE\_ORDER\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	ORDERID	RESTAURANTID	SUPPLIERID	DUE DATE	COST
1	1	1	1	1 01-JAN-20	420
2	2	2	2	2 02-FEB-20	220
3	3	3	3	1 03-MAR-20	375
4	4	4	4	4 04-APR-20	575
5	5	5	4	1 05-MAY-20	475

comp2650\_connection x PASTA\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	FOODID	PFOODID	SAUCE
1	1	1	1 Meat
2	2	2	2 Enchilada
3	3	3	3 Del Mar
4	4	4	4 Cheese
5	5	5	5 Marinara

comp2650_connection x PARTY_T x							
Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL							
Sort.. Filter: Actions...							
	PARTYID	RESTAURANTID	PARTYNAME	NOOFGUESTS	TABLESNEEDED	TAKEOUT	BAR
1	1	1	Johnson	2	0	1	0
2	2	2	Turner	2	0	0	1
3	3	3	Charles	1	1	1	1
4	4	4	LaPlante	2	0	0	1
5	5	5	Del Mar	2	1	1	1

comp2650_connection x PARTIME_T x					
Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL					
Sort.. Filter: Actions...					
	EMPLOYEEID	PEMPOLOYEEID	WAGE	HOURS	TIP
1	1	1	15	25	50
2	2	2	20	22	55
3	3	3	22	30	75
4	4	4	19	28	40
5	5	5	21	25	67

comp2650_connection x M_SUPPLIER_T x		
Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL		
Sort.. Filter: Actions...		
	MSUPPLIERID	SUPPLIERID
1	1	1 Meat
2	2	2 Meat
3	3	3 Meat
4	4	4 Meat
5	5	5 Meat

comp2650_connection x INVEXP_T x		
Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL		
Sort.. Filter: Actions...		
	EXPENSEID	IEXPENSEID
1	1	1 Plates
2	2	2 Utensils
3	3	3 Supplies
4	4	4 Cups
5	5	5 Gloves



comp2650\_connection x G\_SUPPLIER\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	GSUPPLIERID	SUPPLIERID	ITEMNAME
1	1	1	1 Spices
2	2	2	2 Flour
3	3	3	3 Sugars
4	4	4	4 Baked Goods
5	5	5	5 Flour

comp2650\_connection x FOOD\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	FOODID	RESTAURANTID
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5

comp2650\_connection x EXPENSE\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	EXPENSEID	RESTAURANTID	AMOUNTPAID	DATEPAID
1	1	1	50	04-APR-20
2	2	2	40	04-MAY-20
3	3	3	60	04-MAY-20
4	4	4	80	04-APR-20
5	5	5	30	06-JUL-20

comp2650\_connection x ENCHILADA\_T x

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Sort.. Filter: Actions...

	FOODID	EFOODID	SAUCE	FILLING
1	1	1	1 Meat	1
2	2	2	2 Enchilada	0
3	3	3	3 Del Mar	0
4	4	4	4 Marinara	0
5	5	5	5 Cheese	1

comp2650_connection x EMPLOYEE_T x							
Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL							
Sort.. Filter: Actions...							
	EMPLOYEEID	RESTAURANTID	NAME	AGE	DATEHIRED	ADDRESS	PHONENO
1	1	1	1 Franklin Animal	34	04-JUN-19	35 Lane St	8977564656
2	2	2	2 Alex Ovechkin	40	05-MAY-18	43 Capital Way	876537896
3	3	3	3 James Charles	18	08-SEP-20	80 Street St	9958375738
4	4	4	1 Oliver Tree	34	05-SEP-19	75 Tree St	9746352783
5	5	5	2 Joe Turner	20	01-MAY-21	69 Federal Furnace Rd	7815889110

comp2650_connection x EMPEXP_T x				
Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL				
Sort.. Filter: Actions...				
	EXPENSEID	EMPEXPENSEID	FULLTIME	PARTTIME
1	1	1	14	4
2	2	2	13	3
3	3	3	12	5
4	4	4	14	2
5	5	5	13	4

comp2650_connection x DINING_T x				
Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL				
Sort.. Filter: Actions...				
	TABLEID	RESTAURANTID	CAPACITY	BOOTH
1	1	1	2	0
2	2	2	2	0
3	3	3	2	1
4	4	4	1	1
5	5	2	2	0

comp2650_connection x CRUISEEXP_T x			
Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL			
Sort.. Filter: Actions...			
	EXPENSEID	CEXPENSEID	CRUISENAME
1	1	1	1 Princess
2	2	2	2 Princess
3	3	3	3 Norweigen
4	4	4	4 Disney
5	5	5	5 Princess

comp2650_connection × BEVERAGE_T ×				
Columns   Data   Model   Constraints   Grants   Statistics   Triggers   Flashback   Dependencies   Details   Partitions   Indexes   SQL				
Sort..   Filter: <input type="text"/> ▼ Actions...				
	BEVID	RESTAURANTID	NAME	PRICE
1	1	1	1 Coke	2
2	2	2	2 Pepsi	2
3	3	3	3 Sprite	2
4	4	4	4 Dr Pepper	2
5	5	5	5 Water	2

comp2650_connection × APPLIANCE_T ×					
Columns   Data   Model   Constraints   Grants   Statistics   Triggers   Flashback   Dependencies   Details   Partitions   Indexes   SQL					
Sort..   Filter: <input type="text"/> ▼ Actions...					
	APPLIANCEID	RESTAURANTID	NAME	PURCHASEDATE	LASTSERVICED
1		1	1 Dishwasher	01-JAN-20	05-MAY-20
2		2	2 Oven	01-JAN-20	04-MAY-20
3		3	3 Fridge	01-JAN-20	05-JUN-20
4		4	1 Freezer	01-JAN-20	01-MAY-20
5		5	2 Fryer	01-JAN-20	03-AUG-20

comp2650_connection × ALCBEV_T ×			
Columns   Data   Model   Constraints   Grants   Statistics   Triggers   Flashback   Dependencies   Details   Partitions   Indexes   SQL			
Sort..   Filter: <input type="text"/> ▼ Actions...			
	ABEVID	BEVID	APR
1		1	1 5
2		2	2 4
3		3	3 6
4		4	4 8
5		5	5 3