

# PROJECT STEP 4 - DRAFT

Boba Best-Teas

Garrick Chan  
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## WEBSITE URL

<http://flip3.engr.oregonstate.edu:8084/>

## PEER FEEDBACK

### Andrew Alexandrescu

Does the UI utilize a SELECT for every table in the schema?

- Yes, each table has this capability

Does at least one SELECT utilize a search/filter with a dynamically populated list of properties?

- Yep, you can search by ID, .

Does the UI implement an INSERT for every table in the schema? In other words, there should be UI input fields that correspond to each table and attribute in that table.

- Yes there is an option to add a drink, and topping, customer, and order.

Does each INSERT also add the corresponding FK attributes, including at least one M:M relationship? In other words if there is a M:M relationship between Orders and Products, INSERTing a new Order (e.g. orderID, customerID, date, total), should also INSERT row(s) in the intersection table, e.g. OrderDetails (orderID, productID, qty, price and line\_total).

- Yes, it seems that is the case. Adding a products will populate your cart which has a M:M relationship

Is there at least one DELETE and does at least one DELETE remove things from a M:M relationship? In other words, if an order is deleted from the Orders table, it should also delete the corresponding rows from the OrderDetails table, BUT it should not delete any Products or Customers.

- Yes, there is the option to remove products and they will be removed from your cart

Is there at least one UPDATE for any one entity? In other words, in the case of Products, can productName, listPrice, qtyOnHand, e.g. be updated for a single ProductID record?

- Yes, you can edit(update) the customers entities.

Is at least one relationship NULLable? In other words, there should be at least one optional relationship, e.g. having an Employee might be optional for any Order. Thus it should be feasible to edit an Order and change the value of Employee to be empty.

- Yes, you can make the phone number nullable

Do you have any other suggestions for the team to help with their HTML UI?

- The UI so far looks great. Just keep up the good work.

### Lucas Garcia

Props on your design, the UI looks real smooth and it's got a cute style. Rip your store hours.

*Does the UI implement an INSERT for every table in the schema?* In other words, there should be UI input fields that correspond to each table and attribute in that table.

#### **Each table does implement each insert functionality for each item in the schema**

*Does each INSERT also add the corresponding FK attributes, including at least one M:M relationship?* In other words if there is a M:M relationship between Orders and Products, INSERTing a new Order (e.g. orderID, customerID, date, total), should also INSERT row(s) in the intersection table, e.g. OrderDetails (orderID, productID, qty, price and line\_total).

#### **The insertion allows for altering the M:M relationship**

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*Is there at least one DELETE and does at least one DELETE remove things from a M:M relationship?* In other words, if an order is deleted from the Orders table, it should also delete the corresponding rows from the OrderDetails table, BUT it should not delete any Products or Customers.

**It seems to be working correctly with the deletes in each instance of a table.**

*Is there at least one UPDATE for any one entity?* In other words, in the case of Products, can productName, listPrice, qtyOnHand, e.g. be updated for a single ProductID record?

**There does appear to be update functionality on each page.**

*s at least one relationship NULLable?* In other words, there should be at least one optional relationship, e.g. having an Employee might be optional for any Order. Thus it should be feasible to edit an Order and change the value of Employee to be empty.

**Toppings looks to be nullable**

*Do you have any other suggestions for the team to help with their HTML UI?*

**Everything looks really good. The only thing that might be changed stylistically is the outlining of your element in order to make sections stand out from the background. But if you're going for a softer aesthetic it looks great as it is**

## **Michael Dobbins**

Group 100,

First off want to say I looooooove boba tea =D

- *Does the UI utilize a SELECT for every table in the schema?* In other words, data from each table in the schema should be displayed on the UI. **Yes it looks like this is accomplished**
- *Does at least one SELECT utilize a search/filter with a dynamically populated list of properties?*

**Yes, in the order page you can do different drink order id and also customer ID.**

- *Does the UI implement an INSERT for every table in the schema?* In other words, there should be UI input fields that correspond to each table and attribute in that table. **Look like it all is working with an insert!**
- *Does each INSERT also add the corresponding FK attributes, including at least one M:M relationship?*

**Yes it looks like everything is corresponding and functioning correctly with the relationships**

- *Is there at least one DELETE and does at least one DELETE remove things from a M:M relationship?* In other words, if an order is deleted from the Orders table, it should also delete the corresponding rows from the OrderDetails table, BUT it should not delete any Products or Customers. **Yes thee are delete and or clear options. Specifically they do have one for the M:M relationship.**
- *Is there at least one UPDATE for any one entity?* In other words, in the case of Products, can productName, listPrice, qtyOnHand, e.g. be updated for a single ProductID record? **Yes you can also update products.**

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- *Is at least one relationship NULLable?* In other words, there should be at least one optional relationship, e.g. having an Employee might be optional for any Order. Thus it should be feasible to edit an Order and change the value of Employee to be empty. **Yes Toppings is a nullable relationship which looks all good to me!**
- *Do you have any other suggestions for the team to help with their HTML UI?*

**Honestly you all did a great job and have a solid product here I am impressed. I really like your UI all of it made sense to me. Would love to see some creative names for the bubble tea drinks but not needed.**

## Lindsay Goins

Hi Group 100! I love your idea!! Your UI is also very cute. I think you guys did a great job.

- **Does the UI utilize a SELECT for every table in the schema?**

Yes.

- **Does at least one SELECT utilize a search/filter with a dynamically populated list of properties?**

Yes, the Order page lets you filter orders by Order ID.

- **Does the UI implement an INSERT for every table in the schema?**

Yes.

- **Does each INSERT also add the corresponding FK attributes, including at least one M:M relationship?**

Yes.

- **Is there at least one DELETE and does at least one DELETE remove things from a M:M relationship?**

Yes, there is a DELETE option for the M:M relationship between orders and base\_drinks.

- **Is there at least one UPDATE for any one entity?**

Yes, you can edit items (drinks\_instances) in an order.

- **Is at least one relationship NULLable?**

Yes, drinks\_instances don't have to have a topping, so removing the topping\_id should nullify the relationship.

- **Do you have any other suggestions for the team to help with their HTML UI?**

On the Order page, there is an option to search by ID. I think it means search by Order ID, but I would just clarify what type of ID you're searching by.

## **Actions Based on Feedback**

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All suggestions were addressed and are listed below.

ACTION	REVIEWER
Replaced placeholder names (Drink #1) with drink names on all pages.	Dobbins
Added shadows to each element to define each section in the UI.	Garcia
Specified the type of ID being used for search on the order page.	Goins

## Upgrades to the Draft version

- Updated issue with navbar not properly adjusting.
- Moved the store name to the middle of the navbar when in the smaller version.
- Added order and cart buttons to navbar list.
- Added descriptions to base drinks on the menu.
- Fixed resize issue for tables in all pages.
- Minor changes to CSS for all previous changes.

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## Project Outline and Database Outline

A small Boba Tea shop has been taking orders over the phone during the COVID-19 Pandemic, they receive between 200-400 calls per day with each order placed being anywhere between \$6-\$40 so in a slow day they make a minimum of \$1,200. Their current system requires them to talk to each customer over the phone, write down their order, repeat the order back to the customer, then the written order is taken to the kitchen for an employee to start working on it. This slows them down and makes customers wait on their phone queue for too long before being able to place an order. The store wants to be able to input the orders on a computer instead of having to write them down and eventually give customers the option to do it online themselves and have the staff making the drinks being able to see the orders as soon as they are placed. With this system, ordering drinks and customizing each drink with toppings will be easier than ever for both staff and customers.

### Entities

**customers:** Keeps track of the customer using the following attributes:

- Customer ID (customer\_id - INT, PK, NOT NULL, AUTO INCREMENT, UNIQUE)
- First Name (first\_name - VARCHAR, NOT NULL): First name of the customer.
- Last Name (last\_name - VARCHAR, NOT NULL): Last name of the customer.
- Phone Number (phone\_number - VARCHAR): Using this format ###-###-####. Phone numbers must be unique, no two customers can have the same number.

**orders:** Tracks the customers to which the orders belong.

- Order ID (order\_id - INT, PK, NOT NULL, AUTO INCREMENT, UNIQUE)
- Customer (customer\_id - INT, FK, NOT NULL): ID of the customer who made this order.

**drinks\_instances:** When a customer orders a particular drink from base\_drinks, a drink instance is created. This instance is then connected to any toppings the customer wants to add. This allows a customer to order multiple of the same base drink, each with different toppings or sizes.

- Instance ID (instance\_id - INT, PK, NOT NULL, AUTO INCREMENT, UNIQUE)
- Order ID (order\_id - INT, FK, NOT NULL): References the order this instance is part of.
- Drink ID (drink\_id - INT, FK, NOT NULL): References the base drink.
- Size (size - INT, NOT NULL): 0 for Small, 1 for Medium, and 2 for Large.

**toppings:** Toppings can be added to drinks\_instances

- Topping ID (topping\_id - INT, PK, NOT NULL, AUTO INCREMENT, UNIQUE)
- Topping Name (topping\_name - VARCHAR, NOT NULL): The name of the topping.

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- Cost (total\_cost, DECIMAL [4,2], NOT NULL): Price of the topping.

**base\_drinks:** Tracks drinks on the menu and the cost of each, based on size.

- Drink ID (drink\_id - INT, PK, NOT NULL, AUTO INCREMENT, UNIQUE)
- Name (drink\_name - VARCHAR, NOT NULL): The name of the base drink.
- Small Cost (small\_cost - DECIMAL [4,2], NOT NULL): Price of a small drink.
- Medium Cost (medium\_cost - DECIMAL [4,2], NOT NULL): Price of a medium drink.
- Large Cost (large\_cost - DECIMAL [4,2], NOT NULL): Price of a large drink.

## Relationships

A 1:M relationship between customers and orders. An order made by exactly one customer, and a customer can place many orders.

A 1:M relationship between orders and drinks\_instances. An order is composed of at least one drink instance, and any given drink instance belongs to exactly one order.

A M:M relationship between drinks\_instances and toppings. Drinks instances can have 0 or more toppings. Toppings can be in 0 or more drinks instances. A table called drinks\_toppings, containing foreign keys to drinks\_instances and toppings, is used to achieve the M:M relationship between drinks\_instances and toppings.

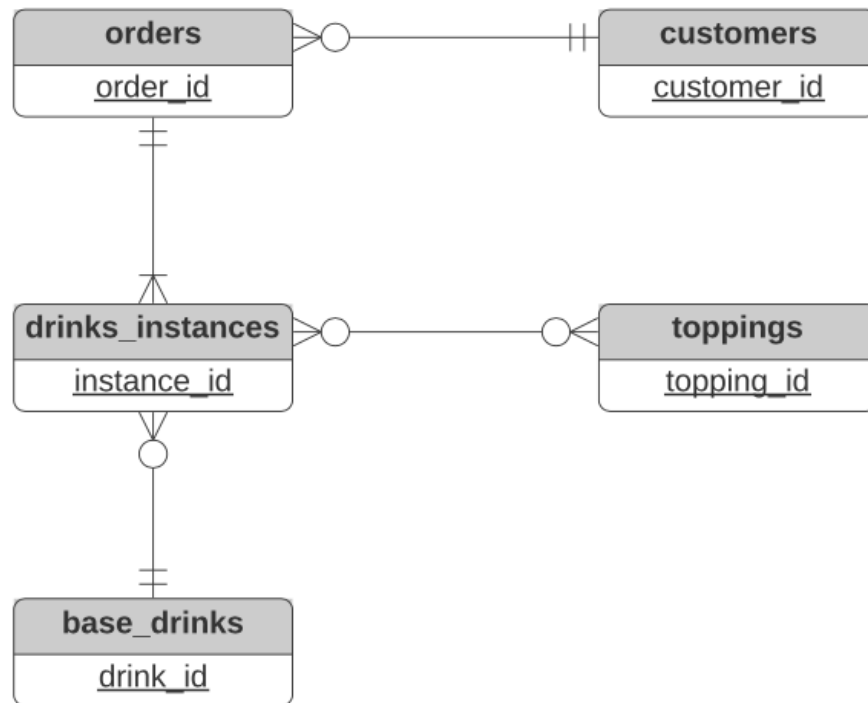
A 1:M relationship between base\_drinks and drinks\_instances. Any given drink instance is based on exactly one base drink. A base drink can be the basis of 0 or more drink instances.

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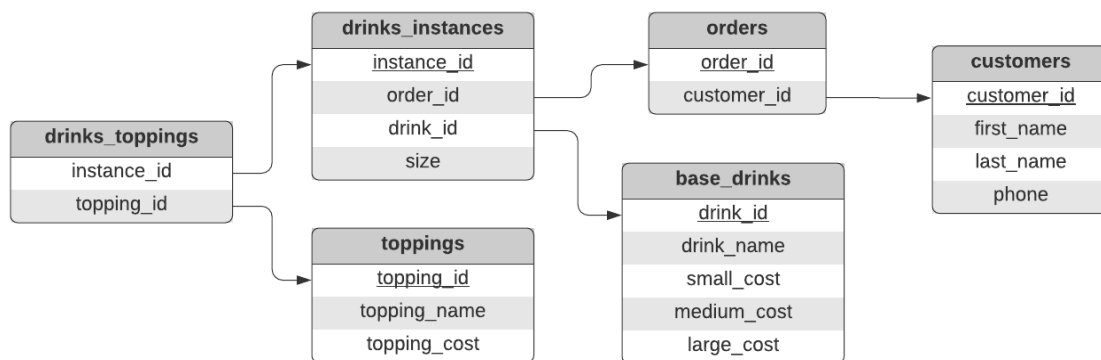
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## Entity-Relationship Diagram



## Schema



drinks\_toppings is used to achieve the M:M relationship between drinks\_instances and Toppings