PROJECT STEP 1

Project Proposal and Outline

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Boba Best-Teas

OVERVIEW

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. Because of how the orders are written down and the store has several employees working on orders sometimes an order or items from an order get made multiple times which creates extra expenses for the store. 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 and who is working on each order to avoid having multiple employees working on the same order and/or item.

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DATABASE OUTLINE

Entities

Customers (customers): Keeps track of the customer using the following attributes:

- Customer ID (cid - INT, PK): An auto-incrementing integer that is unique to a customer.
- First Name (fName - VARCHAR, not null): First name of the customer.
- Last Name (lName - VARCHAR): Last name of the customer.
- Phone Number (phone - CHAR): Using this format ###-###-####. Phone numbers must be unique, no two customers can have the same number.

Orders (orders): Tracks the customer who made an order and the employee responsible for fulfilling the order.

- Order ID (oid - INT, PK): An auto-incrementing integer that is unique to an order.
- Employee ID (eid - INT, not null, FK): Employee that fulfilled the order.
- Customer (cid - INT, not null, FK): The id of the customer who made this order

Drinks (drinks): List the name of the drink and the cost for each size (This entity refers to an item on the menu, not an instance of a drink.)

- Drink ID (drid - INT, PK): An auto-incrementing integer that is unique to a drink.
- Name (dName - VARCHAR, not null): The name of the drink.
- Small Cost (scost - DECIMAL [4,2]): The cost of the small version of this drink.
- Medium Cost (mcost - DECIMAL [4,2]): The cost of the medium version of this drink.
- Large Cost (lcost - DECIMAL [4,2]): The cost of the large version of this drink.

Employees (employees): Name of the employee responsible for fulfilling an order.

- Employee ID (eid - INT, PK): An auto-incrementing integer that is unique to an employee.
- First Name (efName - VARCHAR, not null): First name of the employee.
- Last Name (elName - VARCHAR, not null): Last name of the employee.

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Relationships

A 1:1 relationship between Customer and Order. An order is made by exactly one customer, and a customer can make at most one order at a time.
A M:M relationship between Order and Drink. A Drink can be in many Orders and an Order can have many Drinks.
A 1:M relationship between Order and Drinks. Every order must have at least one drink and every drink is part of zero or more orders.
A 1:M relationship between Employee and Orders. Each employee can have zero or more orders to take care of at any given moment

Relationship Tables

A relationship table is used to connect Orders and Drinks.

- Order ID (oid - INT, FK)
- Drink ID (drid - INT, FK)
- Drink Size (size - VARCHAR)