# EECS 341 Project Proposal: Bar Database

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### 1 Application Background

Our project describes and implements a functioning bar. Through this database, the profits, employees, regular customers and menus of a bar could be managed. Cash registers would be able to insert purchases of food into the database, and managers could add and remove employees, change wages and run the restaurant.

## 2 Data Description

We will keep track of the following statistics for each entity in the database.

- 1. Employees
  - (a) Name
  - (b) Salary
  - (c) Date hired
  - (d) Bills served
  - (e) Customers served
  - (f) Other Employees Managed
- 2. Customers
  - (a) Name
  - (b) Items purchased
  - (c) Money spent
  - (d) Age
- 3. Drinks
  - (a) Name

- (b) price
- (c) quantity sold
- (d) Is alcoholic or not

#### 4. Food

- (a) Name
- (b) price
- (c) quantity sold
- (d) Gluten free, vegan or neither
- 5. Bills / Receipts
  - (a) Total price
  - (b) Items on bill
  - (c) Customer that made the purchase
  - (d) Employee that waited on the customer
  - (e) Tip given by customer

### 3 Schema

Customer(<u>cid</u>, name, age) FoodPurchase(<u>cid</u>, <u>fid</u>, qty)

- 1. cid in FoodPurchase is a foreign key referencing cid in Customer
- 2. fid in FoodPurchase is a foreign key referencing fid in FoodItem DrinkPurchase(<u>cid</u>, <u>did</u>, qty)
  - 1. cid in DrinkPurchase is a foreign key referencing cid in Customer
- 2. did in DrinkPurchase is a foreign key referencing did in Drink FoodItem(fid, name, pid, vegan, gluten-free)
- pid is a foreign key referencing pid in Pricetable
  Drink(did, name, pid, alcoholic)

pid is a foreign key referencing pid in Pricetable
 Pricetable(pid, price)

Bill(billNo, cid, eid, totalprice, tip)

- 1. cid is a foreign key referencing cid in Customer
- 2. eid is a foreign key referencing eid in Employee

Employee(eid, salary, name, date-hired)

 $Manager(\underline{mid}, name, eid)$ 

1. eid is a foreign key referencing eid in Employee

# 4 ER Diagram

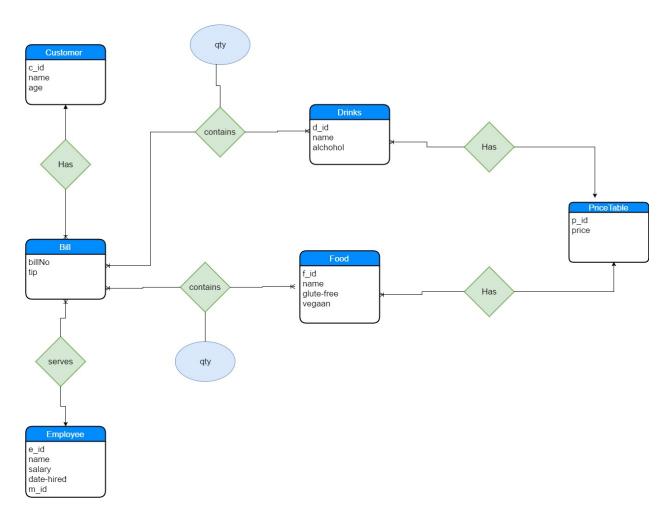


Figure 1: ER Diagram.