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Diagram, schematic

Description automatically generated

Table: SoapBarInventory

This table helps keep track of the store inventory. Its primary key is ProdID which is linked to the type of bar. Its foreign keys are ShipmentID and ReceiptNumber. Other attributes are the bar name, bar type, barid, cost to company, inventory (count), and the cost to the buyer. First relationship it has is a many to one with StoreInformation. That is because each product can only be sold at one store. Another relationship it has is many to one with shipmentfacts. That is because we only get new product when we are completely sold out. So each shipment can bring different bars of soap but each bar until sold out can only be brough once. Another relationship it has is a many to one with Sales. Each sale can have many products, but each product can only be bought once.

Table: ShipmentFacts

This table helps keep track of the shipment each bar came from. Since the soap bars expire after two years, we keep track of the arrival date and expiration date. The primary key in the table is the shipmentID. Two Foreign keys are ProdId and StoreID (keep track of what bars this certain shipment had and to what store it went to). Other attributes we keep track of is the count, arrival date and expiration date. The first relationship it has is a many to one with StoreInformation. Many shipments can go to one and only one store. The other relationship it has is a one to many with SoapBarInventroy. Each bar can only have one shipment tied to it. We only restock when we completely run out of that bar or when it has expired. This helps keep a bar from having different shipment Id’s/ expiration dates.

Table: Crew

This table helps keep track of our crew. These range from part time, full time, manager, and stocker positions. Attributes included is their ID, first name, last name, schedule, phone number, address, zip Code, State, Emergency Contact with their number, work position, and their benefits if any are included. Its primary key is the employee id assigned to each employee. Foreign key included is the storeId. Even if there is only one location this keeps track of the store. Hence why the only relationship this table has is to StoreInformation. Each crew can be in one and only one store, but each store can have many employees.

Table: Store Information

This table contains all the information about the store and Owner. We don’t need his personal info as it’s his only store and he’s the one that runs everything. Store information attributes are store name, location, Id of the employees, product id, shipment id (the truck being sent to the store), and the sales id (receipt of the customer basically). The primary key is the StoreID. We keep storeId in case we build other stores. Foreign keys are Crew Id, ProdId, ShipmentID, SalesID. The table has a one and only one store to many employees’ relationship with the crew table. The store can have many employees. It’s also connected to the SoapBarInventory table. The relationship is that each store can have many products (soap bars), but each inventory count can only go to one store. The table also has a one-to-many relationship with the Sales table. A store can have many sales, but each sale is only linked to one store. To be considered a store there must have at least one sale. The store can’t have zero sales. This table also has a one-to-many relationship with ShipmentFacts. Each shipment is only goes to one store and a store can have many shipments come in.

Table: Sales

This table keeps track of the sales. It contains the customer information and the products that were sold. The primary key is ReceiptNumber. It has two foreign keys which are ProdId and CustId. The only other attribute left is the date of the receipt. It has a many to one relationship with Customer. This means that a customer can have many purchases, but each sale can only have one customer. It also has a one-to-many relationship with SoapBarInventroy. The sale can consist of one or many soap bars. Each soap bar can only be linked to one sale.

Table: Customer

This table keeps track of the customers buying at the store. To be a customer there must at least be a record of one sale. The primary key here is the customerID. Attributes are first name, last name, phone number, Address, zip code, and their state. The only relationship this table has is a one to many with Sales. Each customer can have many sales (purchases).