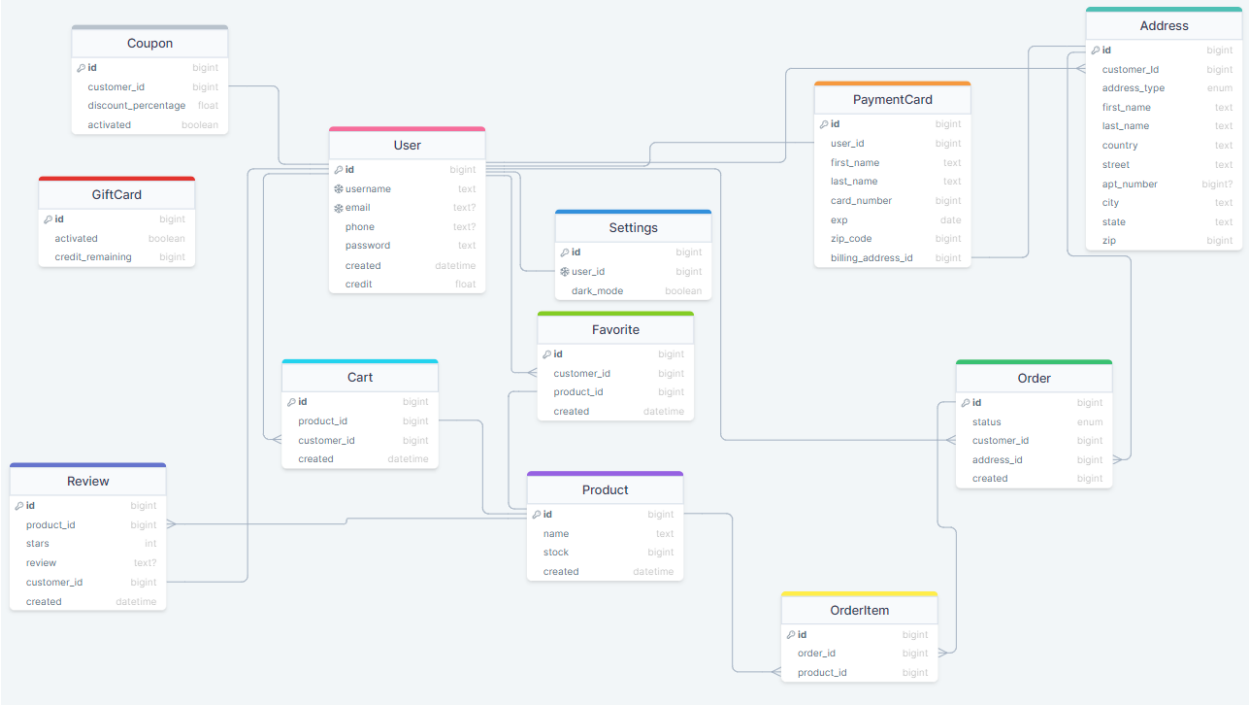
Database Fields

Database Schemas Link: https://drawsql.app/teams/potatochipses-team/diagrams/mydiagram

Here is a draft of our database schema. Initially, it looks overwhelming due to the number of tables present, but the relationships between these tables make it easier to understand.



Legend

- The **Key** Icon represents the ID of each entry/row in the table and is unique and auto-generated.
- The **Snowflake** icon means that a column's value is unique for that table.
- The **Question Mark** next to a field name means that the value is nullable/optional. Assume that every field without a question mark is required.
- **Lines** represent relationships between each table and foreign keys. One of the advantages of these relationships is that if a value of a row is changed, everything connected to that row will also change. We can also use it for joining tables together to get all the necessary information we need.

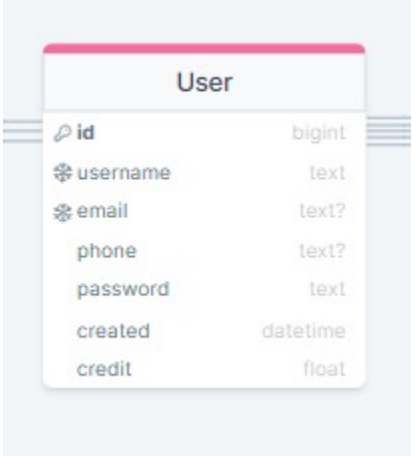
Every ID is unique and auto-generated for that table. The "created" column is also auto-generated and tells us the date and time that the entry was created. For example, if a product was put up on the store, it will contain the date on when the item was created.

The User Table (and an overview of everything else)

In our store, we have customers that register on our website to save their own information to make shopping easier. We need their ID, username, email, phone, etc… On our website, the user has the ability to do the following things:

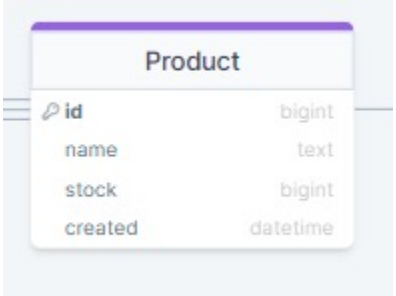
- Add items to their cart
- Leave a review/rating on their purchases
- Checkout the cart and make an order
- Use coupons and gift cards to increase credit/money in their account and save money on discounts.
- Add favorites to save for later
- Set their address
- Set their settings/preferences
- Save their payment information (billing address and credit cards)

As such, we created all these tables to be able to handle all this functionality. The user's ID is connected to most tables since we want to know which entries belong to which users.



Product Table

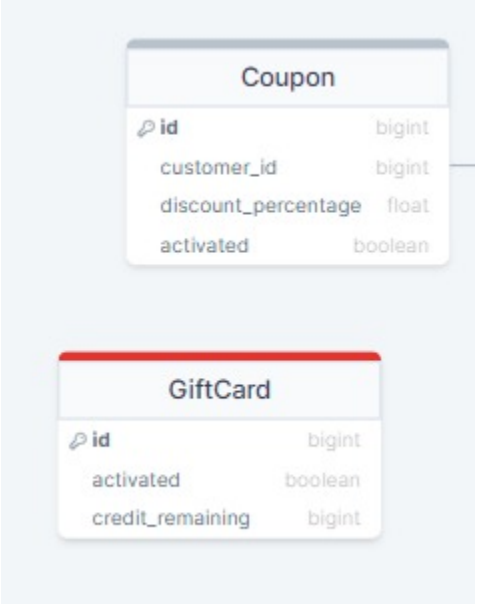
The product table contains products that are in our store. It holds the name, stock, and ID of a product. Every product can contain reviews, and multiple carts can have a particular product in them. As such, the product table is connected to the cart and reviews table.



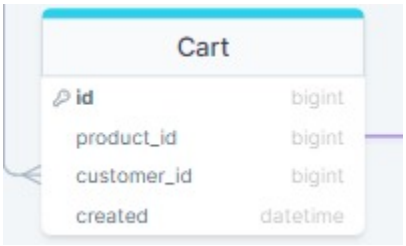
Coupons and Gift Cards Tables

These tables are their own separate thing. Gift cards contain money that the user can activate and transfer money into their account. It has a set amount of money that will be subtracted until it reaches zero.

Coupons apply a discount to a customer's next purchase. Once it is used, it is deactivated.

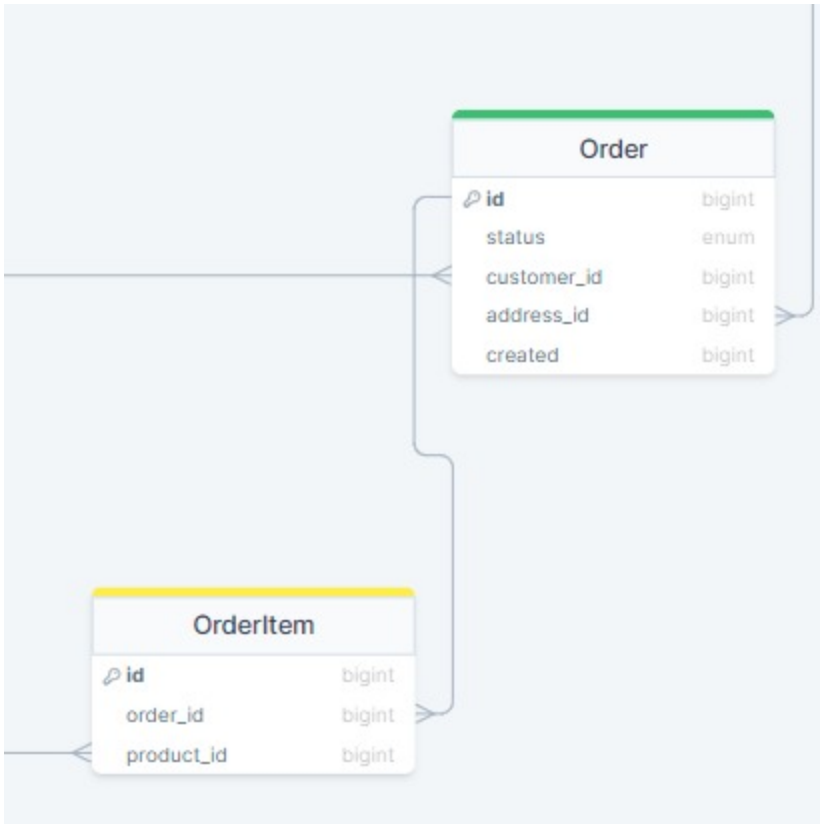


Cart Table
Each row in Cart contains a cart item. Each cart item will belong to a user/customer and will be removed or added whenever a customer makes an order or adds an item to the cart. Once the user checks out, the cart item is removed, and an order is created

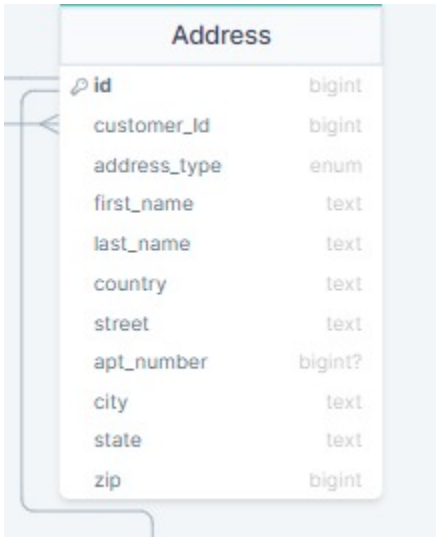


Order and OrderItem Tables
Once an order is created, it will hold the status of the order after the user checks out. The order status is an enum that holds four values: “Processed,” “Shipped,” “Canceled,” and “Arrived.” It also holds the addresses.

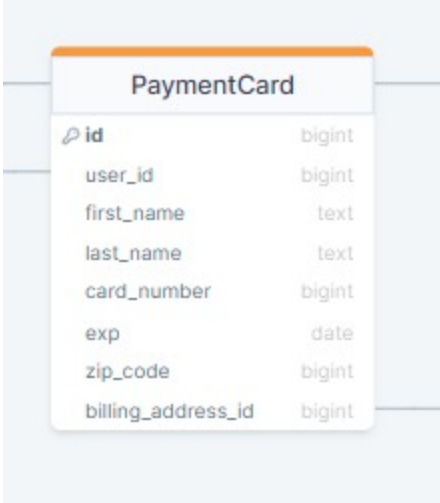
Every cart item will be converted into an order item. The OrderItem row will contain information about what products the customer ordered in an order.



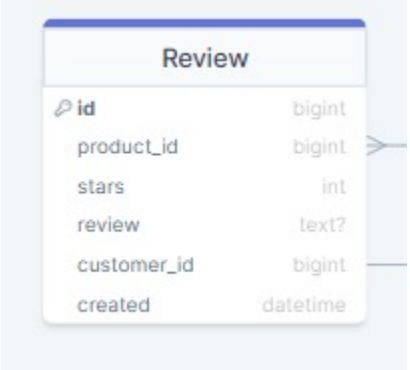
Address Table
Holds the billing and shipping addresses.



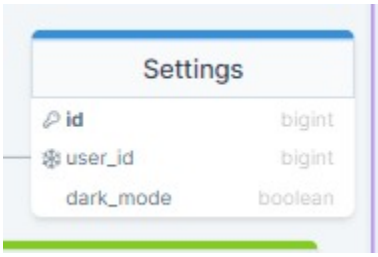
PaymentCard Table
Holds the payment information of a user. If they decide to save a card on our site, we will encrypt the information and store it in our database.



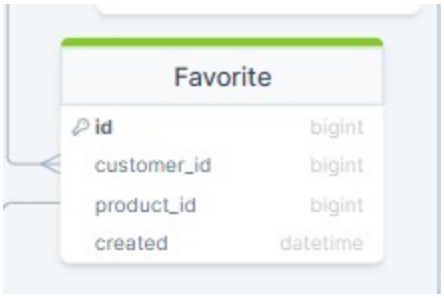
Review Table
Holds the reviews and ratings of a product from each customer



Settings Table
Holds user preferences. Right now, the user can only set dark mode on and off.



Favorite Table
Holds user favorites. These favorites are products that they can look at later.


Favorite
id
bigint
customer_id
bigint
product_id
bigint
created
datetime