

Here I am going to try and explain my movie theater ERD, what my primary keys are, why they are my primary keys, what my foreign keys are and why they are my foreign keys.

Starting with the "Customer" entity:

- The primary key is customer_id, because this way the customer and their purchases can be tracked.
- There are no foreign keys because all of the data in this entity is going to be given by the customer.
- Customer_id is a foreign key in both the tickets entity and the checkout entity
 - For tickets:
 - One customer_id can have one or many tickets
 - For checkout:
 - One customer_id can be used for one checkout, multiple customer_ids cannot be used for one checkout

"Tickets" Entity:

- The primary key is going to be ticket_id, that way the ticket can be tracked from purchase to viewing of the movie
- There are two foreign keys in the ticket entity.
 - customer_id:
 - This is a foreign key here so that the customer's tickets and ticket purchases can be linked to that customer
 - movie_id:
 - This is a foreign key here so that the ticket is for one specific movie and the two can be linked
- Ticket_id is also linked with the "Checkout" entity so that the information from the ticket and its purchase can be shared with checkout.
 - ticket_id is one to one between tickets and checkout because there is one ticket_id given per purchase, and that ticket_id is then used for checkout

"Movies" Entity:

- The primary key is movie_id, because this way when the tickets are purchased they are purchased for a specific movie and that will be reflected with the movie_id
- There are no foreign keys provided in the movies entity because all the information in this entity is independent of the other entities.

"Concessions" Entity:

- Primary key is order_id, which will track all of the data from the food and drink that was ordered.
- The customer will then have an order_id that is given to the checkout entity.

"Checkout" Entity:

- Primary key is cart_id and all of the makeup of this entity is foreign keys because all of the information needed for the customer to successfully purchase their tickets, food and drink will be provided by the other entities. Descriptions are provided above for the cardinality and connectedness of these foreign keys.