ERD Relationships in the Movie Theater Database

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This document explains how and why I chose the relationships between each table in the movie_theater_database.

First is the movies section. All of the data here is only primary keys, which are the following:
- Movie Name
- Show time
- Price
- Rating

Each of these are provided in the table. Next is concessions. Since these are separate from everything, and a starting point, I chose to do all primary keys as well. Each are listed as the following:

- Snack Name
- Snack Size
- Drink Name
- Drink Size
- Total concession cost

The next table is going to tickets. This is where the foreign key comes in. The primary keys are listed as follows:
- Ticket ID number
- Movie Name

The Foreign Key is going to be the movie name that is referenced from the table 'movies.' It takes the data that is entered in movies to only allow that string. It displays the ticket ID that is associated with that movie. Essentially it means that each ticket printed, its ID is associated with that movie, and so at the movie theater it records each ticket sold for that film.

The final table is the customer table. The primary keys are as follows:
- First name
- Last Name
- Age
- Payment total

The payment total is the concessions total and movie total added together. This is added together manually with a calculator. The age indicates how old they are so they can see a movie associated with that movie like G being anyone, PG being young teens, PG-13 etc.

The foreign key is the movie name, and like the tickets table, it records who is seeing what movie. Thus the relationship is that the person can't go see whatever movie they want, but rather they are seeing what movie they paid for.

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The reason I chose each of the relationships I did is because it always relates back to how much money that movie is making which can be counted by how many people buy tickets for that film. It also will show how much money the movie theater itself is making on not only the movies it's showing, but also on its own concessions and food products offered. With this data, the company can calculate how often they should show the movie, see the kind of traffic that happens when certain movies are shown at certain times (kids movies will get better traffic in the daytime rather than night), and it will allow that company to put movies at certain times. It can calculate the amount of food that is being sold, what the most popular sizes are, how they should raise or lower prices, etc. The possibilities are endless. It essentially will allow for the movie company to calculate profits and figure out trends for each and every main point that is needed for a successful movie theater to run. With this data, they can focus on the main parts, and then figure out how they want to proceed for each movie and concession type that is available at the movie theater.