

## Movie Theater ERD- Relationship Reasoning

I started with Customers and Employees, planning that each would have only their identifying primary keys and no foreign keys. Next, I added Auditorium and Movies as they also only have a primary key and no foreign keys.

To start connecting the tables, I created a Screenings table to represent each showing of a movie. I linked Screening to the movie\_id (because of course we need to know which movie is playing in the particular screening), and aud\_id, so we know which auditorium/theater to go to for the screening.

For Concessions, I linked them by the employee id so it is possible to track which employee is responsible for each sale. Also included in Concessions is a purchase time, to gauge when more sales are made (and can be compared to the times of screenings).

Finally, I created the Tickets table as the main hub for connecting information. Within that table, each reservation (or ticket purchase) is given an id, a type (online booking, box office or pre-sale), and then linked to which employee made the sale by employee id, which screening the tickets are for by the screening id, and to the customer who made the purchase by the customer id.

So, all ticket purchases can be traced back to the customer, employee handling the sale, the particular screening (which through the screening table can then be linked to the particular movie id and to the auditorium where it is being shown).