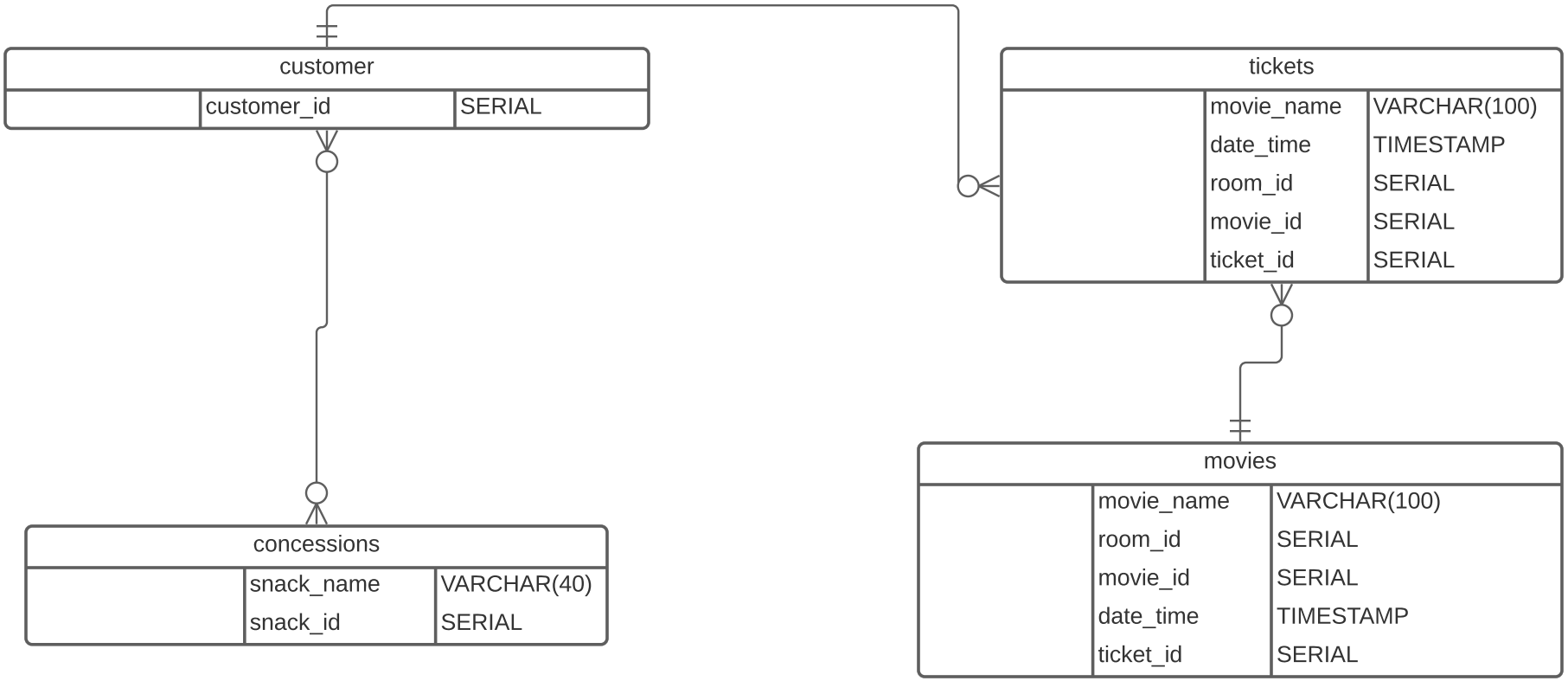
Relational Database for
a movie theater.



Justification for Cardinality assignments.

Customer/Concessions
A single snack id (for example, a slice of pizza) could have many customers/orders associated with it. While it would be unlikely that a snack would be so unpopular as to fail to have a single customer, the possibility remains. Therefore, the minimum possible number of customers per snack is zero. Similarly, a single customer might go to the theater just to watch a movie. They may not necessarily buy any snacks. However, the town glutton might show up and buy tons of snacks. Therefore, this relationship is also zero to many.

Customer/Tickets
While it would be unlikely, someone might walk in to buy a snack without buying a ticket. But a single person could buy many tickets. So zero to many. However, a ticket can only be tied to one order. A ticket could not not be tied to an order. (Double negative.) So it is one and only one.

Tickets/Movies
One movie can have many tickets. If it is unpopular enough, one movie can have zero tickets. (I'm looking at you, Star Wars IX!) So zero to many. A ticket can only correspond to one movie. In my movie theater, you cannot buy one ticket that lets you into multiple movies. No golden tickets here.

I had some difficulty with the timestamp value and ended up using a string for the date_time for this assignment.