

- 1. customers <-> customer transaction:
- a. Customers can have one or many transactions (i.e. you can't be a customer if you haven't purchased anything)
- b. A customer transaction will always be tied to one customer
- 2. customer transaction <-> transaction item:
- a. Cusomer transactions can have one or more transaction items (similar to receipt lines)
- b. A transaction item will always be tied to one customer transaction
- 3. transaction item <-> concession:
- a. A transaction item can have between 0 and 1 concession items (it's possible to have a transaction without a concession items bought during the same transaction will have their own transaction item
- b. Concessions can have between 0 and 1 transaction items (i.e. they do not need a transaction item to exist)
- c. Please note that a transaction item can have either a ticket purchase OR a concession purchase you cannot have both or neither on a single transaction item
- 4. transaction_item <-> ticket
- a. A transaction item can have between 0 and 1 tickets (it's possible to have a transaction without a ticket purchase); additional tickets bought during the same transaction will have their own transaction item.
- b. Tickets can have between 0 and 1 transaction items (i.e. it is possible that a movie showing was not sold out, which leaves tickets without a transaction id)
- c. Please note that a transaction item can have either a ticket purchase OR a concession purchase you cannot have both or neither on a single transaction item
- 5. ticket <-> showing
- a. A ticket is always sold for one specific showing
- b. A showing can have zero to multiple tickets (i.e. people either have not or have bought tickets to the showing)
- 6. showing <-> movie
- a. A showing always shows one movie
- b. A movie can have zero to multiple showings (either the movie is in the movie theater's library and not being currently shown, or it's shown in one showing, or it's shown in multiple showings)
- 7. showing <-> auditorium
- a. A showing always has an auditorium in which it is being shown
- b. An auditorium can have zero to multiple showings (i.e. either it is empty, or it is hosting one showing, or it is hosting multiple showings)