

movies		
PK	movie_id	SERIAL
FK	ticket_id	INTEGER
	movie_name	VARCHAR(100)
	isGood	BOOLEAN
	showing_time	TIME
	rating	VARCHAR(5)

FOREIGN KEY (ticket\_id)  
REFERENCES tickets(ticket\_id)

The movies / tickets join is only one to only one because one ticket gets you into one movie and for one movie there is only one ticket that will get you in, ie you can't use another movies ticket to get into this movie.

tickets		
PK	ticket_id	SERIAL
FK	customer_id	INTEGER
	movie_name	VARCHAR(100)
	price	NUMERIC(6,2)
	showing_time	TIME

customers		
PK	customer_id	SERIAL
	first_name	VARCHAR(25)
	last_name	VARCHAR(25)
	phone	NUMERIC(10,0)
	email	VARCHAR(100)
	isOver18	BOOLEAN

The customers / tickets join is a only one to one to many relationship because one customer may buy one or many tickets, but he must buy one to go see a movie.

FOREIGN KEY (customer\_id)  
REFERENCES customers(customer\_id)

The customers / concessions join is a only one to zero to many relationship because a customer may buy one or many items, or not at all. While one customer may buy for multiple people, we can't know who he is buying for so one and only one.

FOREIGN KEY (customer\_id)  
REFERENCES customers(customer\_id)

concessions		
PK	concession_id	SERIAL
FK	customer_id	INTEGER
	product	VARCHAR(50)
	size	VARCHAR(10)
	price	NUMERIC(6,2)
	date_time	TIMESTAMP(3)

## Simple Theater Database

This is a simple design for a small theater database which can be used to enhance customer experience or create additional products to sell. We might keep this database to provide better customer service or a targeted experience from what we can determine from the data. For instance, Cust1 buys a ticket for "Enter the Dragon" this week, "Ip Man" the next week, and "The One" the next. Using the database to store information, we can query and see that he likes Kung Fu and might sell that data to a martial arts studio to target him as a potential customer. Another scenario would be to see that the top two products sold are popcorn and chocolate covered peanuts, but they rarely get sold to the same person the same night. With that information, you could run a special to include both popcorn and choco peanuts at a reduced price, but more overall profit for you.

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