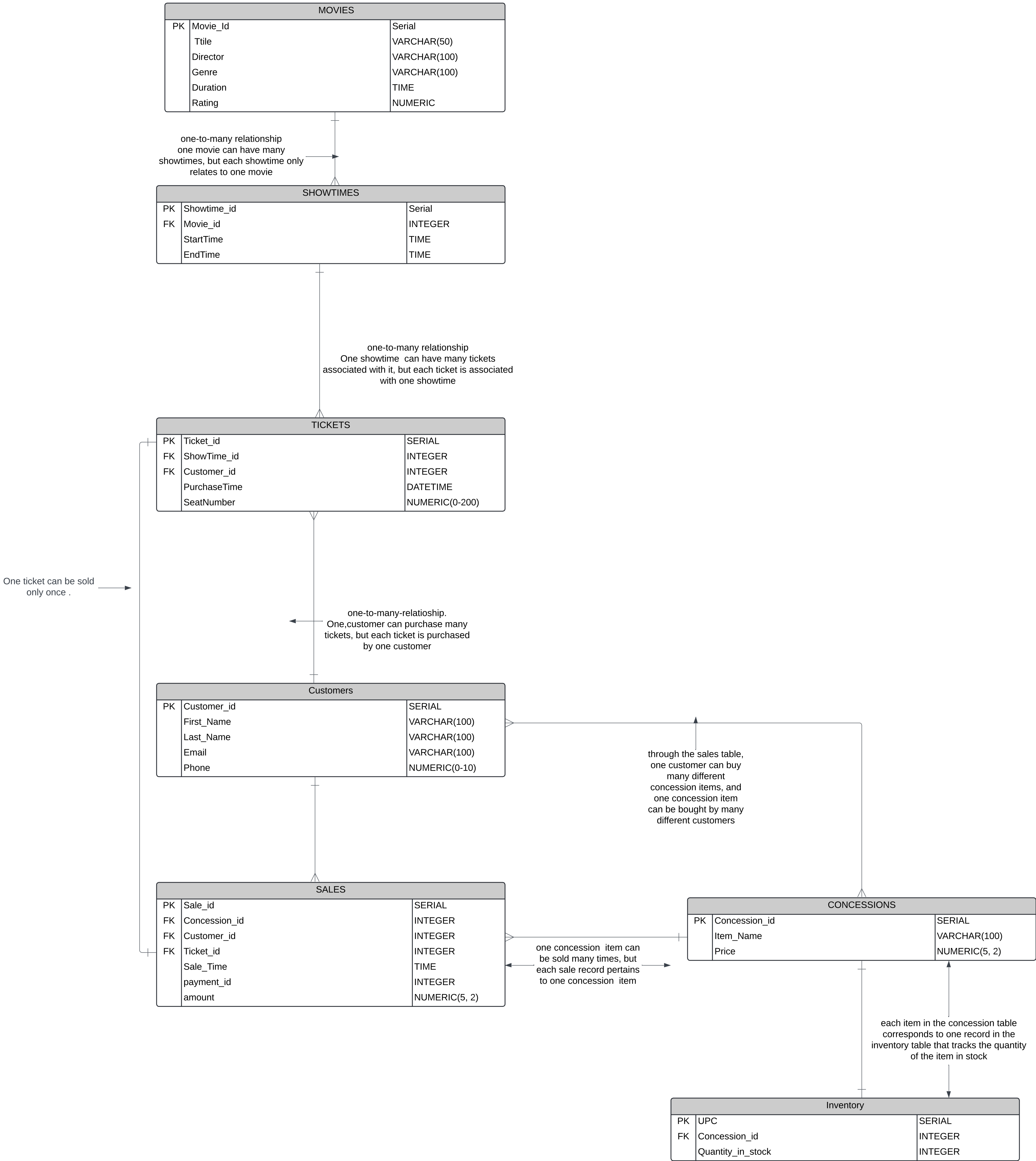ERD FOR OBSIDIAN MOVIE THEATER DATABASE

MY ERD will have 7 tables: movies, showtimes, tickets, customers, concessions, sales and concession

MOVIES

PK	Movie_Id	Serial
	Title	VARCHAR(50)
	Director	VARCHAR(100)
	Genre	VARCHAR(100)
	Duration	TIME
	Rating	NUMERIC

one-to-many relationship
one movie can have many showtimes, but each showtime only relates to one movie

SHOWTIMES

PK	Showtime_id	Serial
FK	Movie_id	INTEGER
	StartTime	TIME
	EndTime	TIME

one-to-many relationship
One showtime can have many tickets associated with it, but each ticket is associated with one showtime

TICKETS

PK	Ticket_id	SERIAL
FK	ShowTime_id	INTEGER
FK	Customer_id	INTEGER
	PurchaseTime	DATETIME
	SeatNumber	NUMERIC(0-200)

One ticket can be sold only once .

one-to-many-relatioship.
One,customer can purchase many tickets, but each ticket is purchased by one customer

Customers

PK	Customer_id	SERIAL
	First_Name	VARCHAR(100)
	Last_Name	VARCHAR(100)
	Email	VARCHAR(100)
	Phone	NUMERIC(0-10)

through the sales table, one customer can buy many different concession items, and one concession item can be bought by many different customers

SALES

PK	Sale_id	SERIAL
FK	Concession_id	INTEGER
FK	Customer_id	INTEGER
FK	Ticket_id	INTEGER
	Sale_Time	TIME
	payment_id	INTEGER
	amount	NUMERIC(5, 2)

one concession item can be sold many times, but each sale record pertains to one concession item

CONCESSIONS

PK	Concession_id	SERIAL
	Item_Name	VARCHAR(100)
	Price	NUMERIC(5, 2)

each item in the concession table corresponds to one record in the inventory table that tracks the quantity of the item in stock

Inventory

PK	UPC	SERIAL
FK	Concession_id	INTEGER
	Quantity_in_stock	INTEGER

DEGREE OF RELATIONSHIPS BETWEEN TABLES

• **Movie - Showtimes**: One-to-Many. One movie can have many showtimes, but each showtime is for one movie.

• **Showtimes - Tickets**: One-to-Many. One showtime can have many tickets, but each ticket is associated with one showtime.

• **Customers - Tickets**: One-to-Many. One customer can purchase many tickets, but each ticket is purchased by one customer.

• **Tickets - Sales**: One-to-One. Each ticket sale corresponds to one ticket.

Concession - Inventory: One-to-One. Each concession item has an inventory record..