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Database Management
Labouseur
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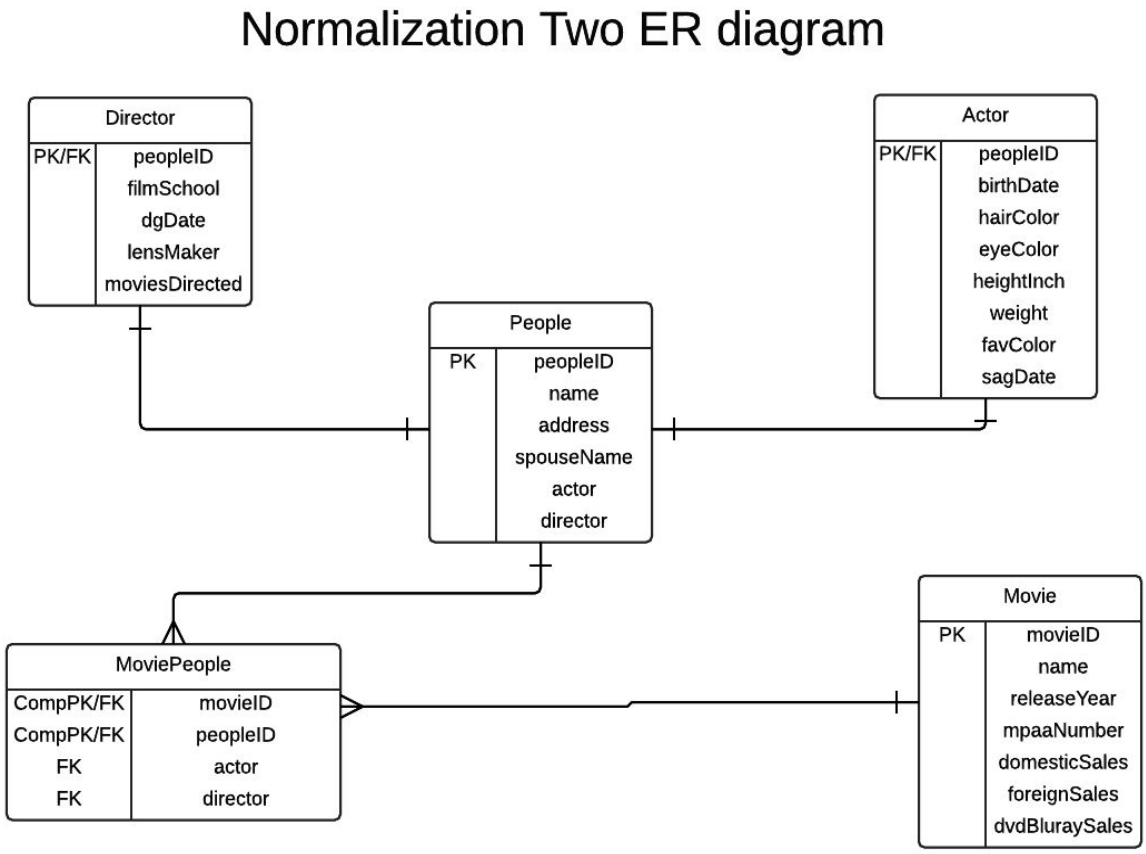
Lab 8

Normalization (two)



SQL:

```
DROP DATABASE IF EXISTS BondDB;
CREATE DATABASE BondDB;

DROP TABLE IF EXISTS People;
DROP TABLE IF EXISTS Movie;
DROP TABLE IF EXISTS Actor;
DROP TABLE IF EXISTS Director;
DROP TABLE IF EXISTS MoviePeople;
```

```
CREATE TABLE People (
        peopleID char(10) not null,
        name text,
        releaseYear integer,
        spouseName text,
        actor boolean,
        director boolean,
  primary key (peopleID)
);

CREATE TABLE Movie (
        movieID char(10) not null,
        name text,
        address text,
        mpaaNumber integer,
        domesticSales integer,
        foreignSales integer,
        dvdBluraySales integer,
  primary key (movieID)
);

CREATE TABLE Actor (
        peopleID char(10) not null,
        birthDate datetime,
        hairColor text,
        eyeColor text,
        heightInch int,
        weight int,
        favColor text;
        sagDate datetime,
  primary key (peopleID),
  foreign key (peopleID) references People(peopleID)
);

CREATE TABLE Director (
        peopleID char(10) not null,
        filmSchool text,
        dgDate datetime,
        lensMaker text,
```

```
        moviesDirected int,
  primary key (peopleID),
  foreign key (peopleID) references People(peopleID)
);

CREATE TABLE MoviePeople (
        peopleID char(10) not null,
        movieID char(10) not null,
        actor boolean,
        director boolean,
   primary key (peopleID, movieID),
   foreign key (peopleID) references People(peopleID),
   foreign key (movieID) references Movie(movieID),
   foreign key (actor) references People(actor),
   foreign key (director) references People(director)
);
```

Functional Dependencies:
(peopleID) → name, address, spouseName, actor, director
(peopleID) → birthDate, hairColor, eyeColor, heightInch, weight, favColor, sagDate
(peopleID) → filmSchool, dgDate, lensMaker, moviesDirected
(movieID) → name, releaseYear, mpaaNumber, domesticSales, foreignSales, dvdBluraySales

SQL Query (for the only Bond who matters)

```
SELECT DISTINCT People.name
FROM People
WHERE People.director = true
AND People.peopleID IN (SELECT DISTINCT peopleID
                        FROM MoviePeople
                        WHERE movieID  IN (SELECT DISTINCT movieID
                                           FROM MoviePeople
                                           WHERE peopleID IN (
SELECT
DISTINCT People.peopleID
FROM People
WHERE People.name = “Sean Connery”)));
```

(Wonky formatting is due to not enough space for subquery continuation. Last query is meant to be within SELECT DISTINCT movieID query)