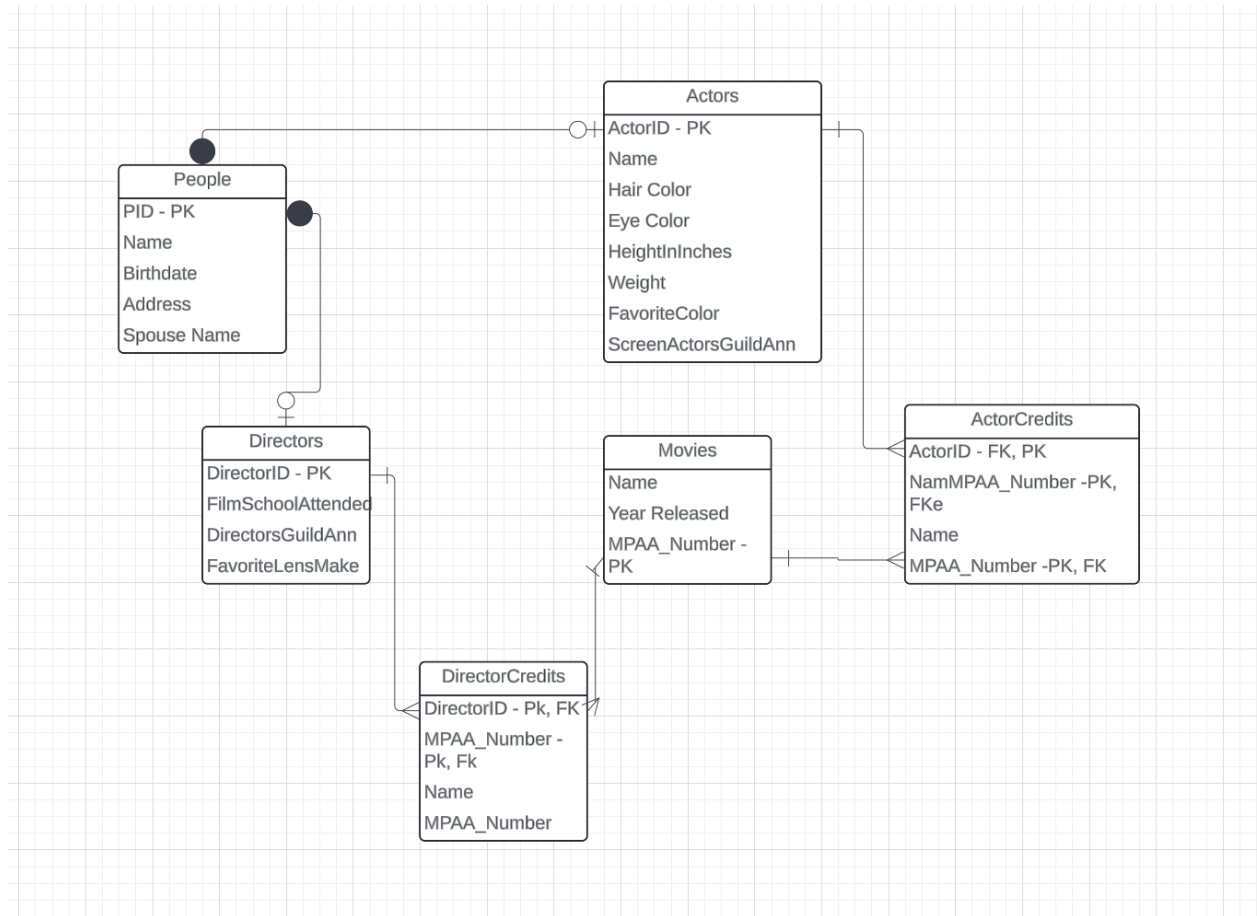# Lab 8 Normalization - Shannon Maier

ER DIAGRAM:

SQL CREATE STATEMENTS

```sql
CREATE TABLE People (
    Pid INT PRIMARY KEY, not null
    Name text,
    Birthdate DATE,
    Address text,
    SpouseName text
);
```

```sql
CREATE TABLE Actors (
    ActorID INT PRIMARY KEY, not null
    Name text,
    HairColor text,
    EyeColor text,
    HeightInInches INT,
    Weight FLOAT,
    FavoriteColor text,
    ScreenActorsGuildAnniversaryDate DATE
);
```

```sql
CREATE TABLE Directors (
    DirectorID INT PRIMARY KEY, not null
    FilmSchoolAttended text,
    DirectorsGuildAnniversaryDate DATE,
    FavoriteLensMake text
);
```

```sql
CREATE TABLE Movies (
    Name text,
    YearReleased YEAR,
    MPAA_Number text,
    PRIMARY KEY (MPAA-Number)
);
```

```sql
CREATE TABLE ActorCredits (
    ActorID INT, not null
    Name text,
    Movie text,
    MPAA_Number text,
    PRIMARY KEY (ActorID, MPAA_Number),
    FOREIGN KEY (ActorID) REFERENCES Actors(ActorID)
    FOREIGN KEY (MPAA_Number) REFERENCES Moviews (MPAA_Number)

);
```

```sql
CREATE TABLE DirectorCredits (
    DirectorID INT, not null
    Name text,
    Movie text,
    MPAA_Number text,
    PRIMARY KEY (DirectorID, MPAA_Number),
    FOREIGN KEY (DirectorID) REFERENCES Directors(DirectorID)
    FOREIGN KEY (MPAA_Number) REFERENCES Moviews (MPAA_Number)
);
```

FUNCTIONAL DEPENDENCIES

- People Table
    - Pid, Name, birthdate, address, spouse name
    - Functional Dependencies
        - PID → birthdate, address, spouseName
- Actors
    - ActorID. Name, hair color, eye color, height in inches, weight, favorite color, screen actors guild anniversary date
    - Functional Dependencies
        - ActorID → Name, hairColor, eyeColor, Height, Weight, FavoriteColor,ScreenActorsGuildAnniverseryDate
- Directors
    - DirectorID, Film school attended, directors guild anniversary date, favorite lens make
    - Functional Dependencies
        - DirectorID → FilmSchoolAttended, directorsGuildAnniverseryDate,FavoriteLensMake
- Movies
    - Name, year released, MPAA number
    - Functional Dependencies
        - MPAA Number → name, yearReleased
- Actor Credits
    - ActorID, name, movie, MPAA Number
    - Functional Dependencies
        - ActorID, MPAA Number → name, movie
- Director Credits
    - DirectorID, name, movie, MPPA number
    - Functional Dependencies
        - DirectorID, MPAA number → name, movie

Write a Query to show all the directors with whom actor Roger Moore has worked with

```
select Directors.name
from Actors
    inner join ActorCredits on Actors.ActorID = ActorCredits.ActorID
    inner join DirectorCredits on ActorCredits.MPPA_Number = DirectorCredits.MPAA_Number
where Actors.name = "Roger Moore";
```