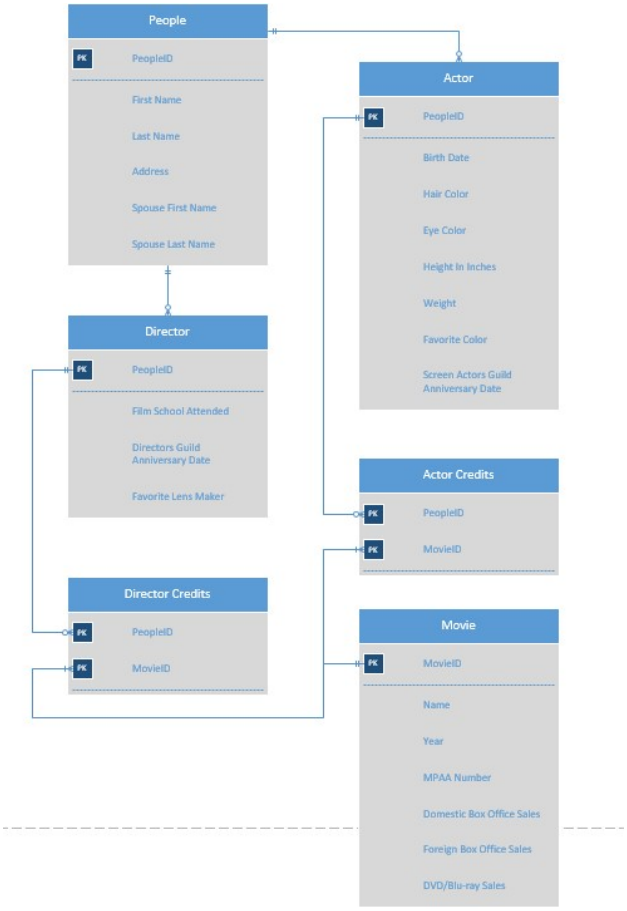
Thomas Famularo 11/9/16

1. E/R Diagram



2. SQL Create Statements

```
Drop table if exists director_creds;
Drop table if exists actor_creds;
Drop table if exists directors;
Drop table if exists actors;
Drop table if exists movies;
Drop table if exists people;

create table people(
  peopleID          int      primary key,
  fName             text     Not null,
  lName             text     not null,
  spouseFName           text,
  spouseLName           Text,
  address           text     not null
);
```

```
create table directors(
  peopleID            int      primary key references people(peopleID),
  filmSchool          text,
  directorsGuildDate  date,
  favoriteLensMaker   text
);

create table actors(
  peopleID            int      Primary key references people(peopleID),
  birthDate           DATE     not null,
  hairColor           Text     not null,
  heightInches        int      not null,
  weight              int      not null,
  favoriteColor       text,
  sagAnnivDate        date
);

create table movies(
  movieID             int      primary key,
  name                text     not null,
  year                int      not null,
  mpaaRating          text     not null,
  domesticBoxSalesUSD int,
  foreignBoxSalesUSD  int,
  dvdBlueRaySalesUSD  int
);

create table actorCredits(
  peopleID            int      references actors(peopleID),
  movieID             int      references movies(movieID),
  primary key(peopleID, movieID)
);

create table directorCredits(
  peopleID            int      references directors(peopleID),
  movieID             int      references movies(movieID),
  primary key(peopleID, movieID)
);
```

3. Functional Dependencies
    a. PeopleID → First Name, Last Name, Address, Spouse First Name, Spouse Last Name
    b. PeopleID → Film School Attended, Director Guild Anniversary Date, Favorite Lens Maker

c. PeopleID → Birth Date, Hair Color, Eye Color, Height In Inches, Weight, Favorite Color, Screen Actors Guild Anniversary Date
d. PeopleID, MovieID →
e. PeopleID, MovieID →
f. MovieID → Name, Year, MPAA Number, Domestic Box Office Sales USD, Foreign Box Office Sales USD, DVD/Blu-ray Sales USD

4. Write a query to show all the directors with whom actor “Sean Connery” has worked

```
SELECT Fname, Lname
 FROM People
WHERE PeopleID IN (SELECT PeopleID
                    FROM DirectorCredits
                   WHERE MovieID IN (SELECT MovieID
                                      FROM ActorCredits
                                     WHERE PeopleID IN (SELECT PeopleID
                                                         FROM People
                                                        WHERE Fname = “Sean”
                                                          AND Lname = “Connery”)))
```