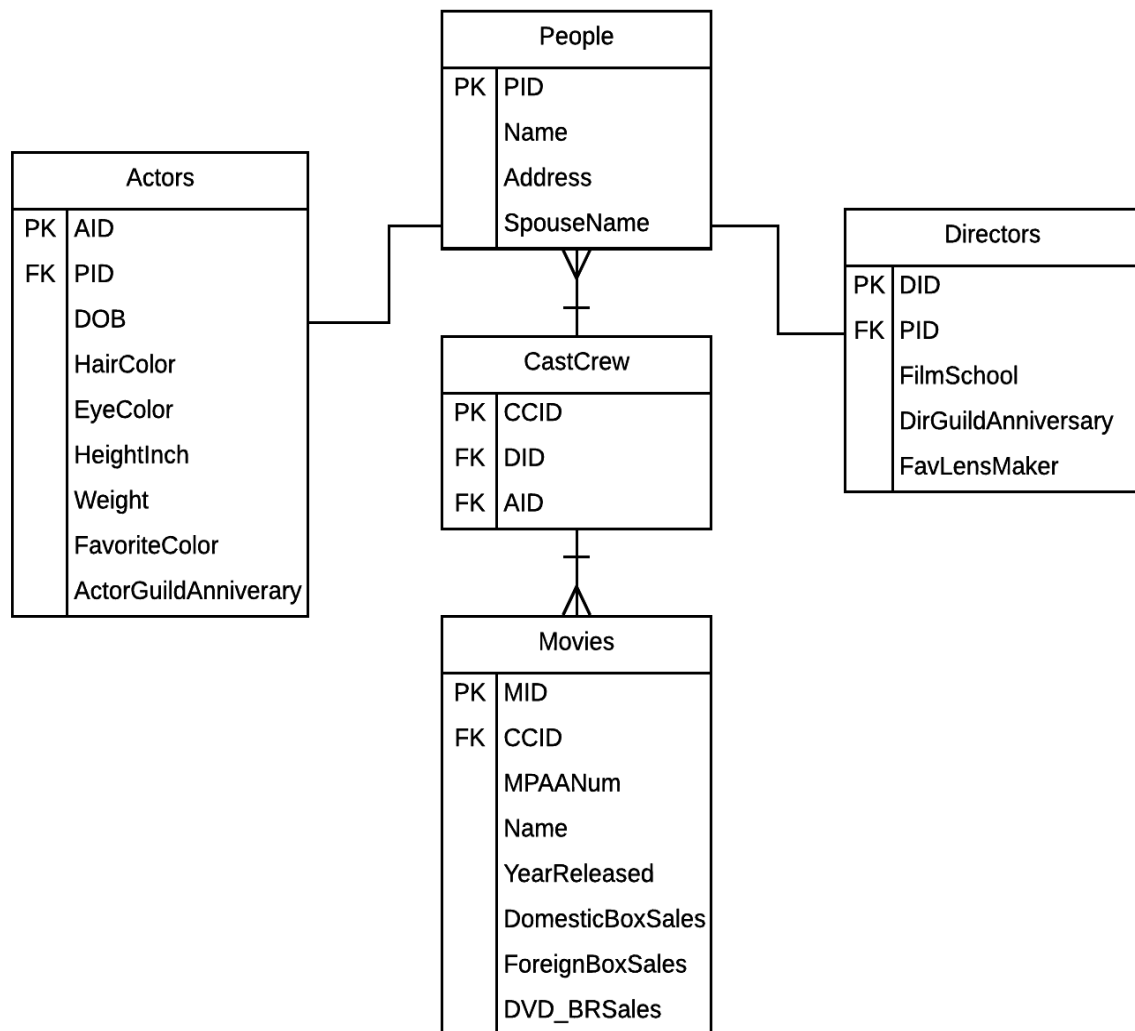Robert Lynch

Professor Labouseur

Database Systems – CMPT 308 114

3 November 2016

Lab 8

1. ER Diagram

2. SQL Code

```
1.  DROP TABLE IF EXISTS People;
2.  DROP TABLE IF EXISTS Actors;
3.  DROP TABLE IF EXISTS Directors;
4.  DROP TABLE IF EXISTS CastCrew;
5.  DROP TABLE IF EXISTS Movies;
6.
7.  --People—
8.  CREATE TABLE People(
9.      PID char(25) not null,
10.     Name text not null,
11.     Address varchar(100),
12.     SpouseName text,
13.     PRIMARY KEY(PID)
14. );
15.
16. --Actors—
17. CREATE TABLE Actors(
18.     AID char(25) not null,
19.     PID char(25) not null references People(PID),
20.     DOB datetime not null,
21.     HairColor text not null,
22.     EyeColor text not null,
23.     HeightInch not null,
24.     Weight not null,
25.     FavoriteColor text,
26.     ActorGuildAnniversary text,
27.     PRIMARY KEY(AID)
28. );
29.
30. --Directors—
31. CREATE TABLE Directors(
32.     DID char(25) not null,
33.     PID char(25) not null references People(PID),
34.     FilmSchool text,
35.     DirGuildAnniversary text,
36.     FavLensMaker text,
37.     PRIMARY KEY(DID)
38. );
39.
40. --CastCrew—
41. CREATE TABLE CastCrew(
42.     CCID char(25) not null,
43.     DID char(25) not null references Directors(DID),
44.     AID char(25) not null references Actors(AID),
45.     PRIMARY KEY(CCID)
46. );
47.
48. --Movies—
49. CREATE TABLE Movies(
50.     MID char(25) not null,
51.     CCID char(25) not null references CastCrew(CCID),
52.     MPAANum integer not null,
53.     Name text not null,
54.     YearReleased date,
55.     DomesticBoxSales numeric(10, 2),
56.     ForeignBoxSales numeric(10, 2),
57.     DVD_BRSales numeric(10, 2),
58.     PRIMARY KEY(MID)
59. );
```

3. Functional Dependencies

   People: PID → Name, Address, SpouseName
   Actors: AID, PID → DOB, HairColor, EyeColor, HeightInch, FavoriteColor,
         ActorGuildAnniversary
   Directors: DID, PID →FilmSchool, DirGuildAnniversary, FavLensMaker
   CastCrew: CCID → DID, AID
   Movies: MID, CCID → MPAANum, YearReleased, DomesticBoxSales,
         ForeignBoxSales, DVD_BRSales

4. Query

```
1. select Name
2. from People
3. where PID in (select PID
4.              from Directors
5.              where DID in (select DID
6.                            from Movies
7.                            where PID in (select PID
8.                                          from People
9.                                          where Name = "Sean Connery"
```