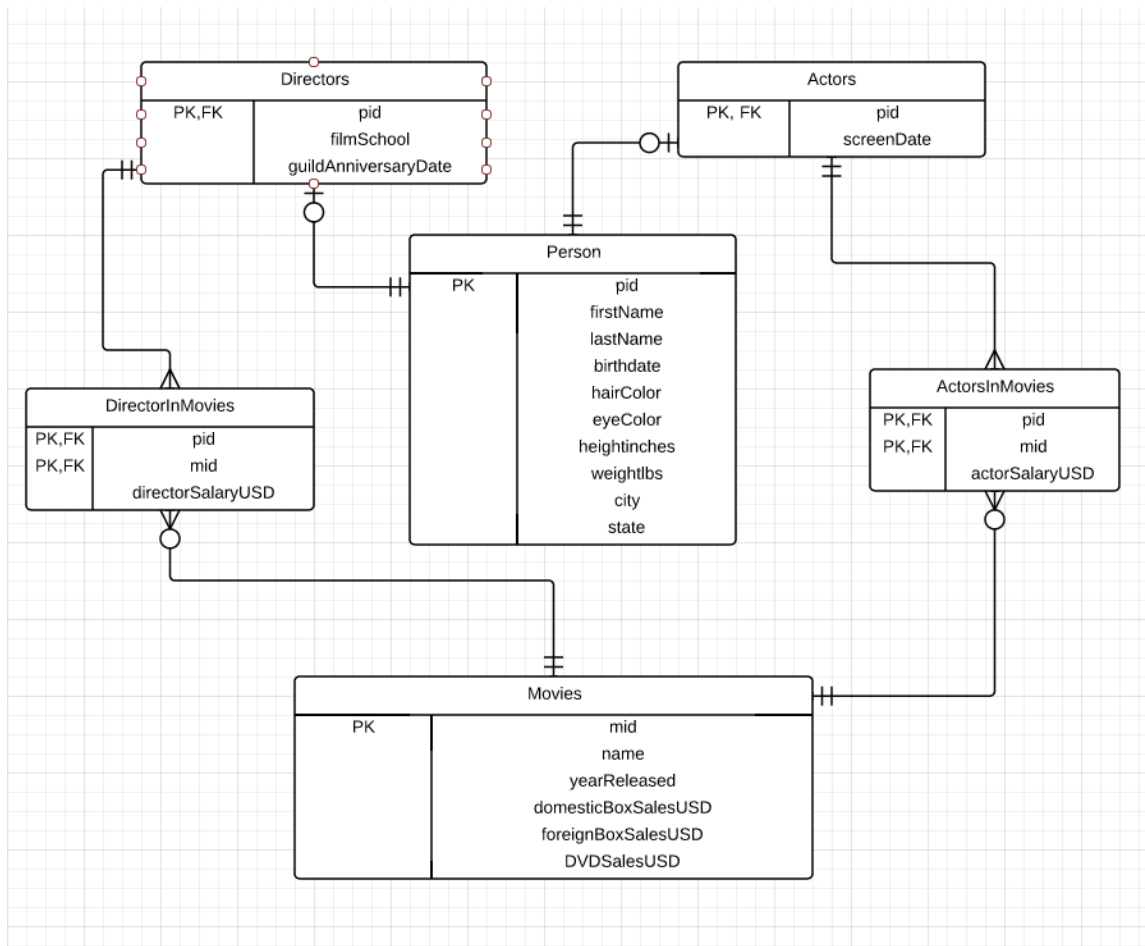


## Normalization 2

## Beautiful E/R diagram



--Create statements

CREATE TABLE person (

    pid          char(4) not null,

    firstName   text,

    lastName    text,

    birthdate   date,

    hairColor   text,

    eyeColor    text,

```
    heightInches  int,  
    weightlbs     int,  
    city          text,  
    state         text,  
  
    primary key(pid)  
);
```

```
CREATE TABLE movies (  
    mid           char(4) not null,  
    movieName     text,  
    yearReleased  int,  
    domesticSalesUSD decimal(15,2),  
    foreignSalesUSD decimal(15,2),  
    DVDSalesUSD   decimal(15,2),  
  
    primary key (mid)  
);
```

```
CREATE TABLE actors (  
    pid           char(4) not null references person(pid),  
    screenDate    date,  
  
    primary key (pid)  
);
```

```
CREATE TABLE directors (  
    pid          char(4) not null references person(pid),  
    filmSchool   text,  
    guildAvsryDate    date,  
  
    primary key (pid)  
);
```

--director in different movies--

```
CREATE TABLE directorsInMovies (  
    pid          char(4) not null references person(pid),  
    mid          char(4) not null references movies(mid),  
    directorSalaryUSD    decimal(15,2),  
  
    primary key(pid, mid)  
  
);
```

--Actors in different movies--

```
CREATE TABLE actorsInMovies (  
    pid          char(4) not null references person(pid),  
    mid          char(4) not null references movies(mid),  
    actorSalaryUSD    decimal(15,2),
```

```
primary key(pid, mid)

);

--Inserts

INSERT INTO person (pid, firstName, lastName, birthdate, hairColor, eyeColor, heightInches,
weightlbs, city, state)

VALUES ('a007', 'Sean', 'Connery', '1930-08-25', 'white', 'black', 74, 201,
'FountainBridge', 'Edinburgh');

INSERT INTO person (pid, firstName, lastName, birthdate, hairColor, eyeColor, heightInches,
weightlbs, city, state)

VALUES ('a001', 'Terence', 'Young', '1915-06-20', 'black', 'black', 76, 220, 'Shanghai',
'China');

INSERT INTO person (pid, firstName, lastName, birthdate, hairColor, eyeColor, heightInches,
weightlbs, city, state)

VALUES ('a002', 'Jet', 'Li', '1963-04-26', 'black', 'black', 66, 180, 'Beijing', 'China');

INSERT INTO person (pid, firstName, lastName, birthdate, hairColor, eyeColor, heightInches,
weightlbs, city, state)

VALUES ('a003', 'Jackie', 'Chan', '1954-04-7', 'black', 'black', 69, 194, 'HongKong',
'China');

INSERT INTO movies (mid, movieName, yearReleased, domesticSalesUSD, foreignSalesUSD,
DVDSalesUSD)

VALUES ('m001', 'From Russia with Love', 1963, 1000000.00, 1000000.00,
1000000.00);
```

```
INSERT INTO movies (mid, movieName, yearReleased, domesticSalesUSD, foreignSalesUSD,
DVDSalesUSD)
```

```
VALUES ('m002', 'Rush Hour', 1998, 1000000.00, 1000000.00, 1000000.00);
```

```
INSERT INTO movies (mid, movieName, yearReleased, domesticSalesUSD, foreignSalesUSD,
DVDSalesUSD)
```

```
VALUES ('m003', 'Rush Hour II', 2001, 1000200.00, 1000200.00, 1000200.00);
```

```
INSERT INTO movies (mid, movieName, yearReleased, domesticSalesUSD, foreignSalesUSD,
DVDSalesUSD)
```

```
VALUES ('m004', 'The Forbidden Kingdom', 2005, 10003000.00, 10040000.00,
10005000.00);
```

```
INSERT INTO directorsInMovies (pid, mid, directorSalaryUSD)
```

```
VALUES ('a001', 'm001', 100000.00);
```

```
INSERT INTO directorsInMovies (pid, mid, directorSalaryUSD)
```

```
VALUES ('a002', 'm004', 102000.00);
```

```
INSERT INTO actorsInMovies (pid, mid, actorSalaryUSD)
```

```
VALUES ('a007', 'm001', 100000.00);
```

```
INSERT INTO actors(pid, screenDate)
```

```
VALUES ('a007', '1950-04-20');
```

```
INSERT INTO actors(pid, screenDate)
```

```
VALUES ('a002', '1999-05-21');
```

```
INSERT INTO actors(pid, screenDate)
VALUES ('a003', '1998-06-23');
```

```
INSERT INTO directors(pid, filmSchool, guildAvsryDate)
VALUES ('a001', 'Great School', '1970-04-21');
```

Functional dependencies

Table **Person**:

Pid -> firstName, lastName, birthdate, hairColor, eyeColor, heightInches, weightlbs, city, state

Table **Movies**:

Mid -> movieName, yearReleased, domesticSalesUSD, foreignSalesUSD, DVDSalesUSD

Table **Directors**:

Pid -> filmSchool, guildAnniversaryDate

Table **Actors**:

Pid -> screenDate

Table **DirectorsInMovies**:

Pid, mid -> directorSalaryUSD

Table **ActorsInMovies**:

Pid, mid -> actorSalaryUSD

--Query

```
select person.firstName, person.lastName
from person, directorsInMovies
```

[illegible]