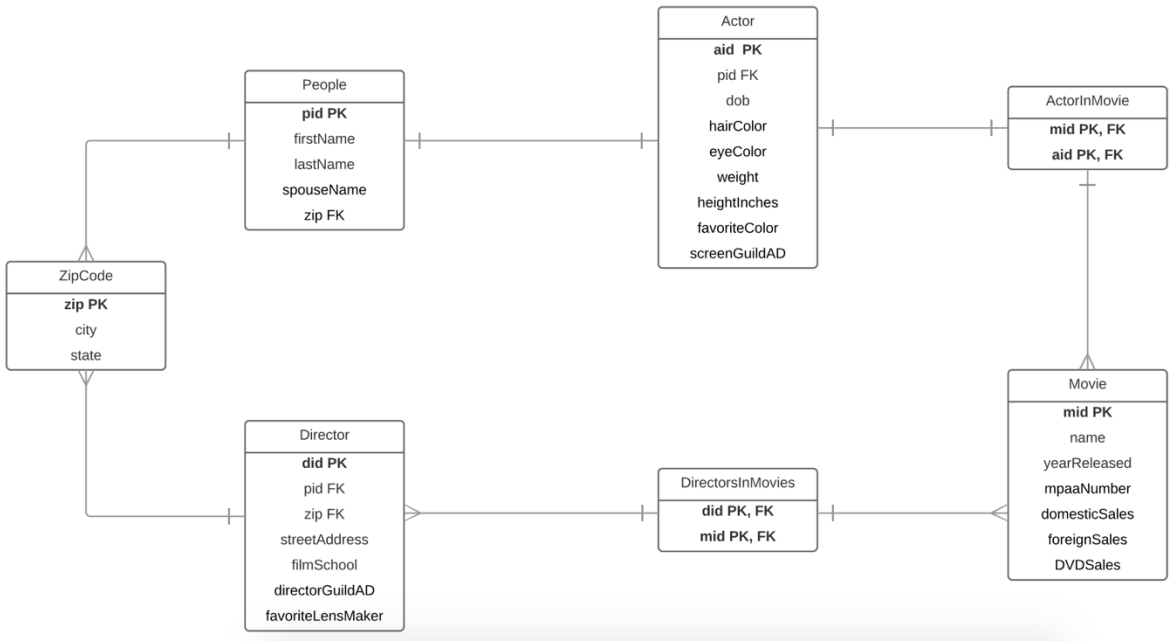
Lab 8: Normalization Lab 2




```
DROP TABLE IF EXISTS Actor;
DROP TABLE IF EXISTS Movie;
DROP TABLE IF EXISTS Director;
DROP TABLE IF EXISTS People;
DROP TABLE IF EXISTS ActorInMovie;
DROP TABLE IF EXISTS DirectorsInMovie;
```

```
-- Actor --
CREATE TABLE Actor (
  aid             char(5) not null,
  pid             char(5) not null,
  dob              text,
  hairColor         text,
```

```
  eyeColor              text,
  weight          text,
  heightInches      text,
  favoriteColor     text,
  screenGuildAD     text

);


-- Movie --
CREATE TABLE Movie (
  mid             char(5) not null,
  name            text,
  yearReleased      text,
  mpaaNumber    text,
  domesticSales     numeric(12,2),
  foreignSales      numeric(12,2),
  DVDSales            text

);


-- Director --
CREATE TABLE Director (
  did             char(5) not null,
   zip                                  char(5) not null,
  pid             char(5) not null,
  streetAddress    text,
  filmSchool       text,
  directorGuildAD   text,
  favoriteLensMaker text

);

CREATE TABLE ZipCode (
  zip             char(5) not null,
  city    text,
  state     text


);




-- People --
```

```
CREATE TABLE People (
  pid                char(5) not null,
    zip         char(5) not null,
  firstName    text,
  lastName     text,
  spouseName   text



);


-- ActorInMovie --
CREATE TABLE ActorInMovie (
  mid    text,
  aid    text


);


-- DirectorsInMovie --
CREATE TABLE DirectorsInMovie (
  did    char(5) not null,
  mid    text

);


-- SQL statements for loading example data

-- Customers --
INSERT INTO Actor(aid, pid, dob, hairColor, eyeColor, weight, heightInches, favoriteColor,
screenGuildAD)
  VALUES('a01', 'p01', '11/01/1995', 'brown', 'blue', '189', '74', 'purple', '10/7/1989');

INSERT INTO Actor(aid, pid, dob, hairColor, eyeColor, weight, heightInches, favoriteColor,
screenGuildAD)
  VALUES('a02', 'p02', '10/6/1974', 'blonde', 'brown', '197', '70', 'pink', '10/7/1989');

INSERT INTO Actor(aid, pid, dob, hairColor, eyeColor, weight, heightInches, favoriteColor,
screenGuildAD)
  VALUES('a03', 'p03', '5/03/1987', 'brown', 'green', '160', '68', 'red', '10/7/1986');


INSERT INTO ZipCode(zip, city, state)
```

```
VALUES('11946', 'Hampton Bays', 'New York'),
    ('12601', 'Poughkeepsie', 'New York'),
    ('13475', 'Random Town', 'Pennsylvania');



-- Director --
INSERT INTO Director(did, pid, filmSchool, directorGuildAD, favoriteLensMaker, zip,
streetAddress)
VALUES('d01', 'p04', 'Academy', '10/7/1983', 'Blue', '12601', '10 Emerson Court' ),
    ('d02', 'p05', 'NY Film', '10/7/1983', 'Black', '11946', '12 Harbor Road' ),
    ('d03', 'p06', 'School', '10/7/1989', 'Red', '13475', '5 Main Street' );


-- Movie --
INSERT INTO Movie(mid, name, yearReleased, mpaaNumber, domesticSales, foreignSales,
DVDSales)
VALUES('m01', 'Aladdin',  '1996', 'PG', '495.00', '800.00', '1200' ),
    ('m02', 'Frozen',  '2015', 'PG', '987.00', '297.00', '2789' ),
    ('m03', 'The Great Gatsby', '2013', 'PG-13', '865.00', '329.00', '3787' );


-- People --
INSERT INTO People(pid, firstName, lastName, spouseName, zip)
  VALUES('p01', 'John', 'Sasso', 'Taylor', '11946' );

INSERT INTO People(pid, firstName, lastName, spouseName, zip)
  VALUES('p02', 'Roger', 'Moore', 'Demi', '12601' );

INSERT INTO People(pid, firstName, lastName, spouseName, zip)
  VALUES('p03', 'Dave', 'Connelly', 'Lindsay', '12601' );

INSERT INTO People(pid, firstName, lastName, spouseName, zip)
  VALUES('p04', 'Taylor', 'Dunn', 'David', '11946' );

INSERT INTO People(pid, firstName, lastName, spouseName, zip)
  VALUES('p05', 'Shannon', 'Cover', 'JT', '13475' );

INSERT INTO People(pid, firstName, lastName, spouseName, zip)
  VALUES('p06', 'Jason','Haley', 'Sreya', '13475' );

INSERT INTO People(pid, firstName, lastName, spouseName, zip)
  VALUES('p07', 'Scott', 'Fritsh', 'Natalie', '13475' );
```

```
-- ActorInMovie --
INSERT INTO ActorInMovie(mid, aid)
VALUES('m02', 'a01'),
    ('m01', 'a02'),
    ('m01', 'a03'),
    ('m02', 'a02'),
    ('m02', 'a02'),
    ('m03', 'a02');


--DirectorsInMovie --
INSERT INTO DirectorsInMovie(did, mid)
VALUES('d01', 'm03'),
                ('d02', 'm01'),
      ('d01', 'm02'),
      ('d02', 'm03'),
      ('d03', 'm03'),
      ('d03', 'm02'),
      ('d01', 'm01'),
      ('d02', 'm02');
```

```
select distinct firstName, lastName
from people
where pid in (select distinct pid
          from people, directorsInMovie
          where people.pid = directorsInMovie.did
          and directorsInMovie.did in (select distinct directorsInMovie.did
                                       from directorsInMovie, actorInMovie
                                       where directorsInMovie.mid = actorInMovie.mid
                                       and actorInMovie.mid in (select distinct actorInMovie.mid
                                                                from actorInMovie, people
                                                                where actorInMovie.aid = people.pid
                                                                and people.pid in (select distinct people.pid
                                                                                   from people
                                                                                   where pid = 'p02'))));
```

```
select distinct firstName, lastName
from people
where pid in (select distinct pid
        from people, directorsInMovie
        where people.pid = directorsInMovie.did
        and directorsInMovie.did in (select distinct directorsInMovie.did
```

```
from directorsInMovie, actorInMovie
where directorsInMovie.mid = actorInMovie.mid
and actorInMovie.mid in (select distinct actorInMovie.mid
        from actorInMovie, people
        where actorInMovie.aid = people.pid
        and people.pid in (select distinct people.pid
                from people
                where pid = 'p02'))));
```

Dependencies:

People
pid → firstName
pid → lastName
pid → spouseName

Actor
pid → aid
aid → DOB
aid → eyeColor
aid → sagDate
aid → favoriteColor
aid → heightInches
aid → hairColor
aid → weight

Director
pid → did
did → filmSchool
did → directorGuildAD
did → favoriteLensMaker
did → streetAddress
did → zip

Movies
mid → title
mid → yearReleased
mid → mpaaNumber
mid → domesticSales
mid → foreignSales
mid → DVDSales

ZipCode
zip → city
zip → state