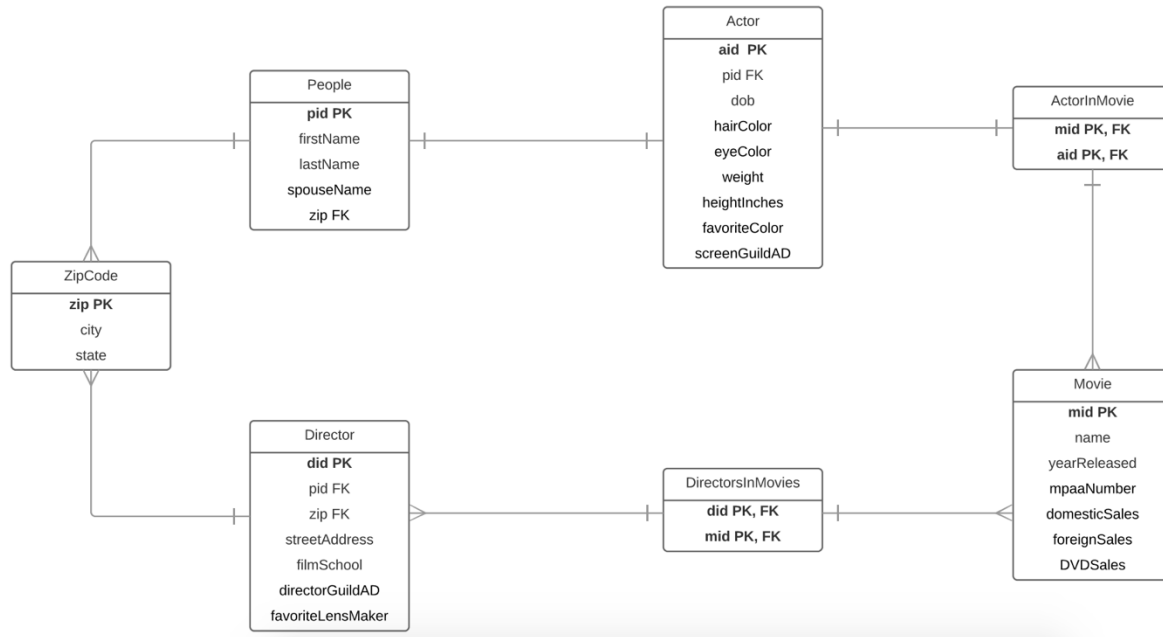


## Lab 8: Normalization Lab 2



```

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,  
DVDsSales)
```

```
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 → screenGuildAD**

**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**