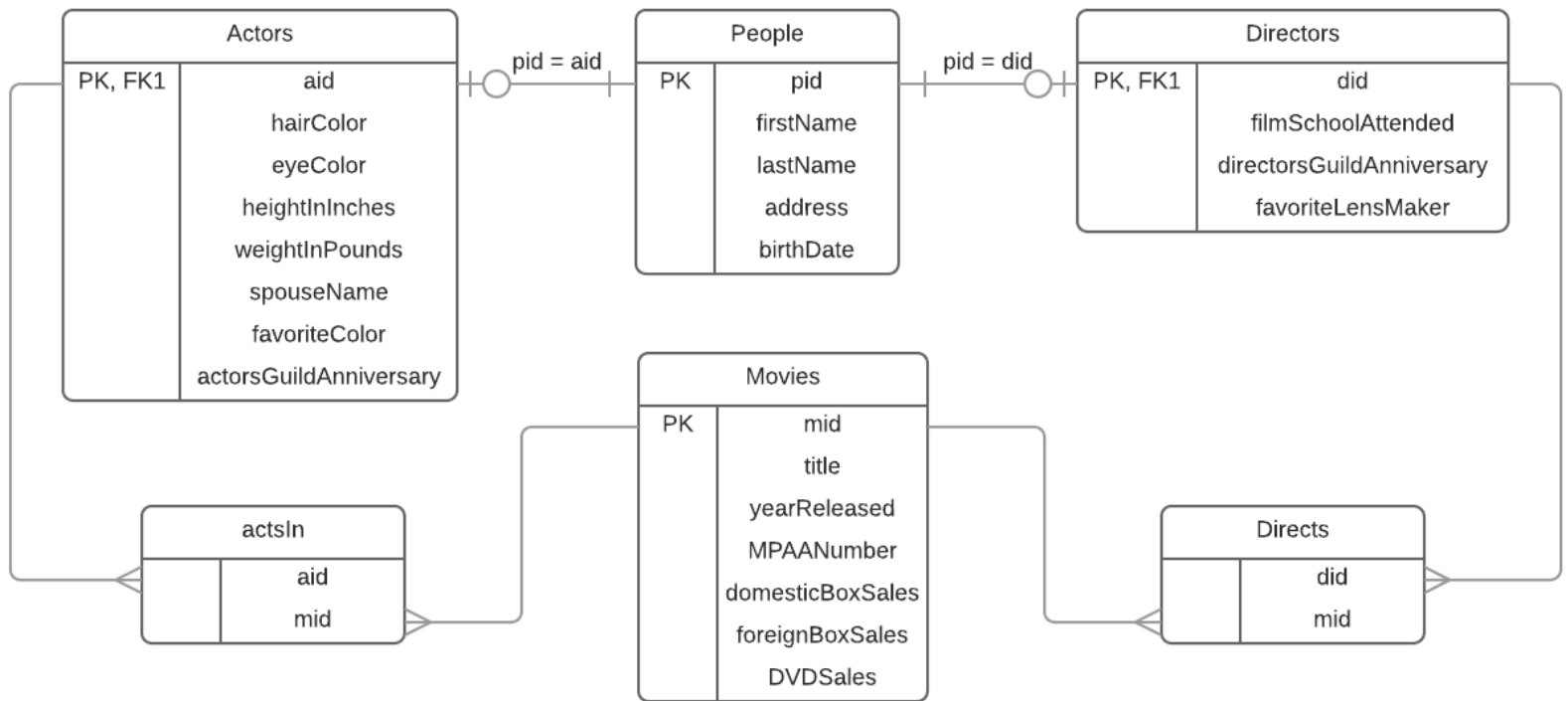**Lab Eight: Normalization Two**

DROP TABLE IF EXISTS People, Actors, Directors, Movies, ActsIn, Directs

```
-- People --
CREATE TABLE People (
  pid            bigserial not null,
  firstName      text not null,
  lastName       text not null,
  address        text,
  birthDate      date, -- YYYY-MM-DD
);
-- Actors --
CREATE TABLE Actors (
  aid int references people(pid),
  hairColor                 text,
  eyeColor                  text,
  heightInInches    decimal(2,2),
  weightInPounds    decimal(3,2),
  spouseName        text,
  favoriteColor     text,
  actorsGuildAnniversary  date,
 primary key(pid)
);

-- Directors --
```

```
CREATE TABLE Directors (
  did int references people(pid)  not null,
  firstName                           text not null,
  lastName                            text not null,
  filmSchoolAttended          text),
  directorsGuildAnniversary    text,
  favoriteLensMaker                  text,
  primary key(pid)
);

-- Movies --
CREATE TABLE Movies (
  mid                      bigserial not null,
  title                    text not null,
  yearReleased             year not null,
  MPAANumber               int,
  domesticBoxSales  int,
  foreignBoxSales   int,
  DVDSales              int,
  primary key(mid)
);

-- actsIn --
CREATE TABLE ActsIn (
  pid not null references actors(pid),  --Originally a spelling error, said: "agents(pid)"
  mid not null references movies(mid)
);

-- Directs --
CREATE TABLE Directs (
  pid not null references directors(pid),
  mid not null references movies(mid)
);

-- Dependencies --
pid -> firstName
pid ->lastName
pid -> address
pid -> birthDate

aid -> hairColor
aid -> eyeColor
aid -> heightInInches
aid -> weightInPounds
aid -> spouseName
aid -> favoriteColor
aid -> actorsGuildAnnivresary

did -> filmSchoolAttended
did -> directorsGuildAnniversary
did -> favoireLensMaker

mid -> title
mid -> yearRelease
```

mid -> MPAANumber
mid -> domesticBoxSales
mid -> foreignBoxSales
mid -> DVDSales

-- Query: Show all the directors with whom actor "Roger Moore" has worked --
SELECT DISTINCT people.*
FROM people, movies, directors, directs
WHERE people.pid = directors.did
AND directors.did = directs.did
and directs.mid in (SELECT DISTINCT movies.mid
                                    FROM people, movies, actors, actsIn
                                    WHERE people.firstName = 'Roger'
                                    AND people.lastName = 'Moore'
                                    AND people.pid = actors.aid
                                    AND actors.aid = actsIn.aid
                                    );