Normalization Homework 2
Database Management
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E-R diagram

People	
PK	pid
	fname
	lname
	address

pid   pid

Actors	
PK, FK1	pid
	birthDate
	hairColor
	eyeColor
	heightIN
	weight
	screenGuildAnnDate

Directors	
PK, FK1	pid
	filmSchool
	dirGuildAnnDate

pid   pid

MovieCast	
PK, FK2	pid
PK, FK4	mid

FilmedBy	
PK, FK3	pid
PK, FK4	mid

mid   mid

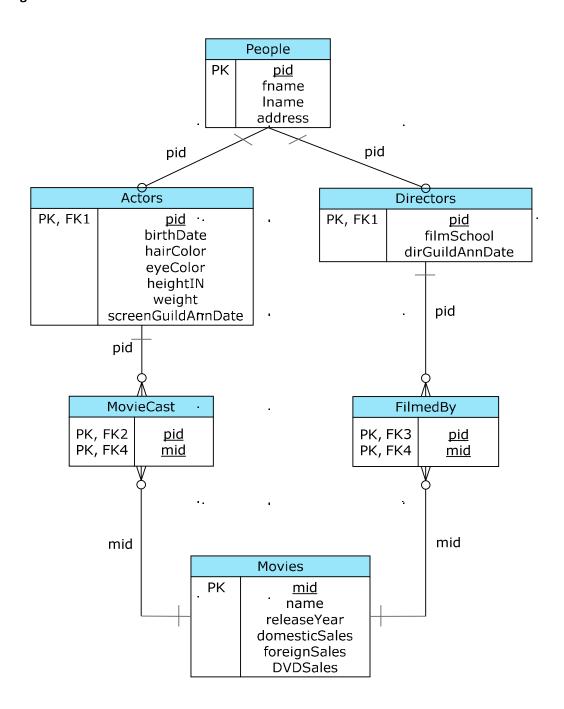| Movies	
PK	mid
	name
	releaseYear
	domesticSales
	foreignSales
	DVDSales

Create statements for each table

--People
```sql
CREATE TABLE People(
    pid      int   NOT NULL primary key,
    fname    text NOT NULL,
    lname    text NOT NULL,
    address text NOT NULL
);
```

--Actors
```sql
CREATE TABLE Actors(
    pid                 int    NOT NULL references People(pid),
    birthDate           Date  NOT NULL,
    hairColor           text  NOT NULL,
    eyeColor            text  NOT NULL,
    heightIN            int    NOT NULL,
    weight              int    NOT NULL,
    screenGuildAnnDate Date  NOT NULL,
    primary key(pid)
);
```

--Directors
```sql
CREATE TABLE Directors(
    pid             int    NOT NULL references People(pid),
    filmSchool      text   NOT NULL,
    dirGuildAnnDate Date NOT NULL,
    primary key(pid)
);
```

--Movies
```sql
CREATE TABLE Movies(
        mid           int  NOT NULL primary key,
        name          text NOT NULL,
        releaseYear   int  NOT NULL,
        domesticSales int  NOT NULL,
        foreignSales  int  NOT NULL,
        DVDSales      int  NOT NULL
);
```

--MovieCast - connection table of Actors/Movies
CREATE TABLE MovieCast(
        pid int NOT NULL references Actors(pid),
        mid int NOT NULL references Movies(mid),
   primary key(pid, mid)
);

--FilmedBy - connection table of Directors/Movies
CREATE TABLE FilmedBy(
        pid int NOT NULL references Directors(pid),
        mid int NOT NULL references Movies(mid),
   primary key(pid, mid)
);

Insert statements

--Insert into People
INSERT INTO People(pid, fname, lname, address)
  VALUES(001, 'Summer', 'Glau', '321 Main St. San Antonio, Texas');

INSERT INTO People(pid, fname, lname, address)
  VALUES(002, 'Nikol', 'Pettine', 'Kyoto, Japan');

INSERT INTO People(pid, fname, lname, address)
  VALUES(003, 'Daniel', 'Craig', '123 Abby Rd. England');

INSERT INTO People(pid, fname, lname, address)
  VALUES(004, 'Will', 'Smith', 'LA, California');

 INSERT INTO People(pid, fname, lname, address)
  VALUES(005, 'Angelina', 'Jolie', 'LA, California');

INSERT INTO People(pid, fname, lname, address)
  VALUES(006, 'Tara', 'Strong', 'Toronto, Ontario, Canada');

INSERT INTO People(pid, fname, lname, address)
  VALUES(007, 'Sean', 'Connery', 'Scotland');

--Directors (Eastwood, Foster, Abrams, Whedon = both actors and directors)
INSERT INTO People(pid, fname, lname, address)

```
    VALUES(008, 'Clint', 'Eastwood', 'San Francisco, California');

INSERT INTO People( pid, fname, lname, address )
 VALUES(009, 'Jodie', 'Foster', 'LA, California');

INSERT INTO People( pid, fname, lname, address )
 VALUES(010, 'J. J.', 'Abrams', 'LA, California');

INSERT INTO People( pid, fname, lname, address )
 VALUES(011, 'Steven', 'Spielberg', 'Cincinnati, Ohio');

INSERT INTO People( pid, fname, lname, address )
 VALUES(012, 'Joss', 'Whedon', 'NY, New York');

INSERT INTO People( pid, fname, lname, address )
 VALUES(013, 'Tim', 'Burton', 'Burbank, California');

INSERT INTO People( pid, fname, lname, address )
 VALUES(014, 'Alfred', 'Hitchcock', 'Leytonstone, Essex, England');

INSERT INTO People( pid, fname, lname, address )
 VALUES(015, 'James', 'Cameron', 'Kapuskasing, Ontario, Canada');

INSERT INTO People( pid, fname, lname, address )
 VALUES(016, 'Guy', 'Hamilton', 'Paris, France');


--Insert into Actors
INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
 VALUES(001, '7/24/1981', 'brown', 'brown', 66, 120, '1/1/2000');

INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
 VALUES(002, '3/25/1994', 'brown', 'brown', 60, 124, '10/30/2013');

INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
 VALUES(003, '3/02/1968', 'brown', 'blue', 75, 160, '2/3/1988');

INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
 VALUES(004, '9/25/1968', 'black', 'brown', 68, 155, '3/1/1992');

INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
```

```sql
   VALUES(005, '6/04/1975', 'brown', 'hazel', 65, 120, '4/4/1990');

INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
  VALUES(006, '2/12/1973', 'blond', 'brown', 63, 125, '4/10/2000');

INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
  VALUES(007, '8/25/1930', 'brown', 'brown', 68, 180, '5/25/1960' );

INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
  VALUES(008, '5/31/1930', 'brown', 'brown', 66, 170, '1/10/1964');

INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
  VALUES(009, '11/19/1962', 'blond', 'blue', 63, 120, '3/5/1980');

INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
  VALUES(010, '6/27/1966', 'black', 'hazel', 65, 175, '12/12/1991');

INSERT INTO Actors( pid, birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate )
  VALUES(012, '6/23/1964', 'brown', 'hazel', 68, 180, '11/4/1990');

--insert into Directors
INSERT INTO Directors( pid, filmSchool, dirGuildAnnDate )
  VALUES(008, 'Military', '1/12/1990');

INSERT INTO Directors( pid, filmSchool, dirGuildAnnDate )
  VALUES(009, 'Yale', '6/24/1991');

INSERT INTO Directors( pid, filmSchool, dirGuildAnnDate )
  VALUES(010, 'Sarah Lawrence College', '2/2/1995');

INSERT INTO Directors( pid, filmSchool, dirGuildAnnDate )
  VALUES(011, 'None', '1/16/1974');

INSERT INTO Directors( pid, filmSchool, dirGuildAnnDate )
  VALUES(012, 'Wesleyan University', '5/5/1992');

INSERT INTO Directors( pid, filmSchool, dirGuildAnnDate )
  VALUES(013, 'California Institute of Arts', '9/8/1988');

INSERT INTO Directors( pid, filmSchool, dirGuildAnnDate )
  VALUES(014, 'St. Ignatius College', '3/21/1939');
```

INSERT INTO Directors(pid, filmSchool, dirGuildAnnDate)
  VALUES(015, 'California State University', '4/20/1980');

INSERT INTO Directors(pid, filmSchool, dirGuildAnnDate)
  VALUES(016, 'French Resistance', '4/20/1964');

--Insert into Movies
--movie directed by eastwood with eastwood in it
INSERT INTO Movies (mid, name, releaseYear, domesticSales, foreignSales, DVDSales)
  VALUES(1,'Space Cowboys', 2000, 90000000, 48000000, 7000000)

--hitchcock film
INSERT INTO Movies (mid, name, releaseYear, domesticSales, foreignSales, DVDSales)
  VALUES(2,'Psycho', 1960, 25000000, 30000000, 5000000)

--joss whedon film with Summer glau
INSERT INTO Movies (mid, name, releaseYear, domesticSales, foreignSales, DVDSales)
  VALUES(3,'Serenity', 2005, 13300000, 25500000, 1000000)

--Angelina jolie film directed by eastwood
INSERT INTO Movies (mid, name, releaseYear, domesticSales, foreignSales, DVDSales)
  VALUES(4,'Changeling', 2008, 35000000, 77300000, 1000000)

--sean connery film - (goldfinger - directed by Guy Hamilton, Indiana Jones - directed by Steven Spielberg)
INSERT INTO Movies (mid, name, releaseYear, domesticSales, foreignSales, DVDSales)
  VALUES(5,'Goldfinger', 1964, 23000000, 46000000, 2000000)

INSERT INTO Movies (mid, name, releaseYear, domesticSales, foreignSales, DVDSales)
  VALUES(6,'Indiana Jones and the Last Crusade', 1989, 19700000, 27700000, 5000000)

--tim burton film
INSERT INTO Movies (mid, name, releaseYear, domesticSales, foreignSales, DVDSales)
  VALUES(7,'Edward Scissorhands', 1990, 56000000, 29000000, 500000)

--jj abrams film
INSERT INTO Movies (mid, name, releaseYear, domesticSales, foreignSales, DVDSales)
  VALUES(8,'Star Trek', 2009, 130000000, 127000000, 5000000)

--insert into MovieCast
--Eastwood in SpaceCowboys
INSERT INTO MovieCast (pid, mid)
  VALUES(8, 1)

--Summer Glau in Serenity
INSERT INTO MovieCast (pid, mid)
  VALUES(1, 3)

--Angelina jolie in Changling
INSERT INTO MovieCast (pid, mid)
  VALUES(5, 4)

--sean connery in goldfinger and in Indiana Jones
INSERT INTO MovieCast (pid, mid)
  VALUES(7,5)

INSERT INTO MovieCast (pid, mid)
  VALUES(7,6)

--Insert into filmedBy
--movie directed by eastwood with eastwood in it
INSERT INTO FilmedBy(pid, mid)
  VALUES(8, 1)

--hitchcock film
INSERT INTO FilmedBy(pid, mid)
  VALUES(14, 2)

--joss whedon film with Summer glau
INSERT INTO FilmedBy(pid, mid)
  VALUES(12, 3)

--Angelina jolie film directed by eastwood
INSERT INTO FilmedBy(pid, mid)
  VALUES(8,4)

--sean connery film (goldfinger - directed by Guy Hamilton, Indiana Jones - directed by Steven Spielberg)
INSERT INTO FilmedBy(pid, mid)
  VALUES(16, 5)

INSERT INTO FilmedBy(pid, mid)
  VALUES(11, 6)

--tim burton film
INSERT INTO FilmedBy(pid, mid)
  VALUES(13, 7)

--jj abrams film
INSERT INTO FilmedBy(pid, mid)
  VALUES(10, 8)

Functional Dependencies for each table
People: pid -> fname, lname, address
Actors: pid -> birthDate, hairColor, eyeColor, heightIN, weight, screenGuildAnnDate
Directors: pid -> filmSchool, dirGuildAnnDate
Movies: mid -> name, releaseYear, domesticSales, foreignSales, DVDSales
MovieCast: pid, mid
FilmedBy: pid, mid

Write query SQL to return all the directors with whom actor "Sean Connery" has worked.
Select distinct p2.fname, p2.lname
From People p, People p2, Actors a, Directors d, Movies m, MovieCast mc, FilmedBy f
Where p.pid = a.pid AND mc.pid = a.pid AND mc.mid = m.mid
    AND p.fname = 'Sean' AND p.lname = 'Connery'
    AND f.mid = m.mid AND f.pid = d.pid AND d.pid = p2.pid