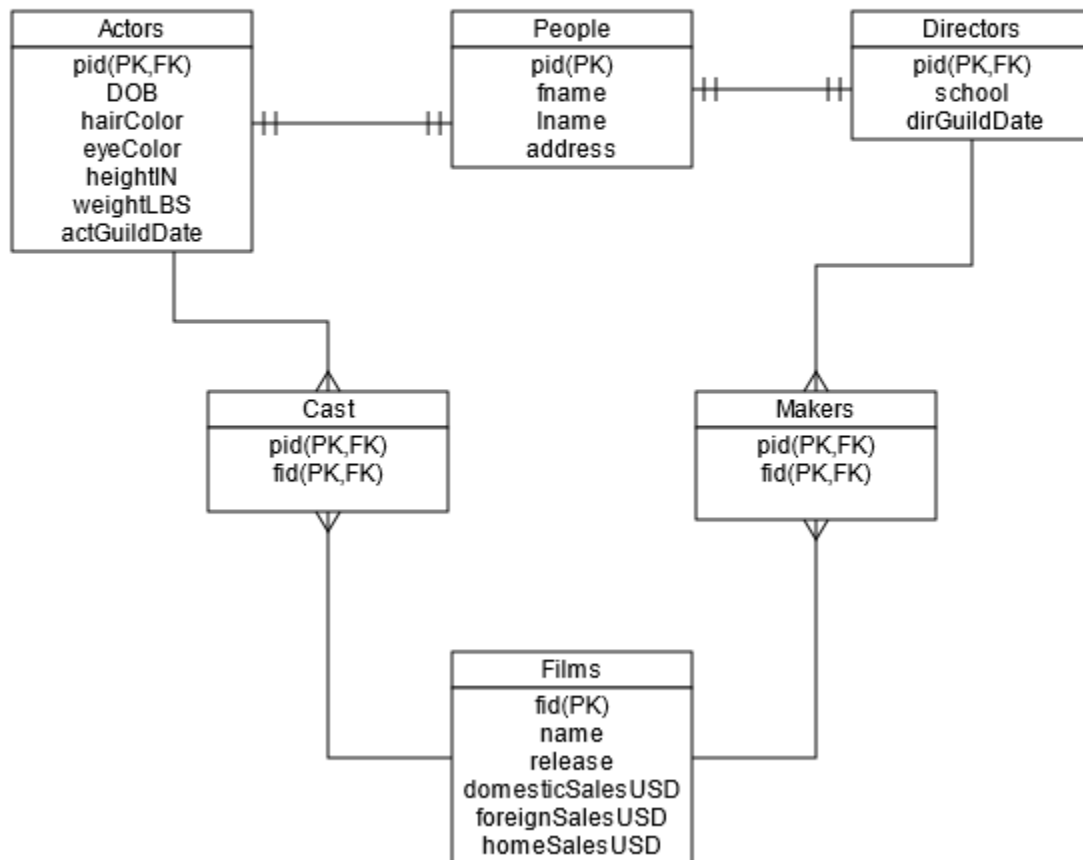Normalization 2
Miles Welsh
Alan Labouseur
Robert Nisco
11/4/2013

--ER Diagram

--SQL create statements

--People
CREATE TABLE IF NOT EXISTS
CREATE TABLE People (
pid   int NOT NULL,
fname   text NOT NULL,
lname   text NOT NULL,

```sql
address     text NOT NULL,
primary key(pid)
);

--Actors
CREATE TABLE IF NOT EXISTS
CREATE TABLE Actors (
pid             int NOT NULL REFERENCES People(pid),
DOB             date NOT NULL,
hairColor       text NOT NULL,
eyeColor        text NOT NULL,
heightIN        int NOT NULL,
weightLBS       int NOT NULL,
ActGuildDate    date NOT NULL,
primary key(pid)
);

--Directors
CREATE TABLE IF NOT EXISTS
CREATE TABLE Directors (
pid             int NOT NULL REFERENCES People(pid),
school          text NOT NULL,
dirGuildDate    date NOT NULL,
primary key(pid)
);

--Films
CREATE TABLE IF NOT EXISTS
CREATE TABLE Films (
fid                 int NOT NULL,
name                text NOT NULL,
release             date NOT NULL,
domesticSalesUSD    int NOT NULL,
foreignSalesUSD     int NOT NULL,
homeSalesUSD        int NOT NULL,
primary key(fid)
);

--Cast
CREATE TABLE IF NOT EXISTS
CREATE TABLE Cast (
pid     int NOT NULL REFERENCES People(pid),
fid     int NOT NULL REFERENCES Films(fid),
primary key(pid, fid)
);
```

```sql
--SQL Insert Statements

--People
INSERT INTO People (pid, fname, lname)
VALUES(01, 'Quentin', 'Tarantino');

INSERT INTO People (pid, fname, lname)
VALUES(02, 'Martin',Scorsese');

INSERT INTO People (pid, fname, lname)
VALUES(03, 'George', 'Lucas');

INSERT INTO People (pid, fname, lname)
VALUES(04, 'Samuel', 'Jackson');

INSERT INTO People (pid, fname, lname)
VALUES(05, 'Robert', 'DeNiro');

INSERT INTO People (pid, fname, lname)
VALUES(06, 'Christoph', 'Waltz');

INSERT INTO People (pid, fname, lname)
VALUES(07, 'Sean', 'Connery');

--Actors
INSERT INTO Actors (pid, DOB, hairColor, eyeColor, heightIN, weightLBS, actGuildDate)
VALUES(01, '1963-03-27', 'Brown', 'Brown', 73, 270, '2000-10-10');

INSERT INTO Actors (pid, DOB, hairColor, eyeColor, heightIN, weightLBS, actGuildDate)
VALUES(04, '1948-12-21', 'Grey', 'Brown', 74.5, 225, '2001-10-10');

INSERT INTO Actors (pid, DOB, hairColor, eyeColor, heightIN, weightLBS, actGuildDate)
VALUES(05, '1943-08-17', 'Grey', 'Brown', 69.5, 170, '2002-10-10');

INSERT INTO Actors (pid, DOB, hairColor, eyeColor, heightIN, weightLBS, actGuildDate)
VALUES(06, '1956-10-4','Grey', 'Hazel', 67, 145, '2003-10-10');

--Directors
INSERT INTO Directors (pid, school, dirGuildDate)
VALUES(01, 'None', '2004-10-10');

INSERT INTO Directors (pid, school, dirGuildDate)
VALUES(02, 'New York University','2005-10-10');

INSERT INTO Directors (pid, school, dirGuildDate)
VALUES(03, 'University of Southern California', '2006-10-10');

INSERT INTO Directors (pid, school, dirGuildDate)
VALUES(05, 'None', '2007-10-10');
```

```sql
--Films
INSERT INTO Films (fid, name, release, domesticSalesUSD, foreignSalesUSD, homeSalesUSD)
VALUES(01, 'Django Unchained', '2012-12-25', 162804648, 123456789, 101112131);

INSERT INTO Films (fid, name, release, domesticSalesUSD, foreignSalesUSD, homeSalesUSD)
VALUES(02, 'Star Wars: Episode II – Attack of the Clones', '2002-06-16', 310675583, 415161718,
192021222);

INSERT INTO Films (fid, name, release, domesticSalesUSD, foreignSalesUSD, homeSalesUSD)
VALUES(03, 'Goodfellas', '1990-09-19', 46836394, 324252627, 282930313);

--Makers
INSERT INTO Makers (pid,fid)
VALUES(02, 03);

INSERT INTO Makers (pid,fid)
VALUES(01,01);

INSERT INTO Makers (pid,fid)
VALUES(03,02);

--Cast
INSERT INTO Cast (pid,fid)
VALUES(05,03);

INSERT INTO Cast (pid,fid)
VALUES(04,01);

INSERT INTO Creators (pid,fid)
VALUES(04,02);

--Functional Dependencies
People: pid → fname, lname, address
Actors: pid → DOB, hairColor, eyeColor, heightIN, weightLBS, actGuildDate
Directors: pid → school, dirGuildDate
Cast: pid, fid
Makers: pid, fid
Films: fid → name, release, domesticSalesUSD, foreignSalesUSD, homeSalesUSD

--Sean Connery Query
SELECT people2.fname, people2.lname
FROM People people, People people2
WHERE people.pid = Actors.pid  AND Cast.pid = Actors.pid AND Cast.fid = Films.fid
      AND people.fname = 'Sean' AND people.lname = 'Connery'
      AND Makers.fid = Films.fid AND Makers.pid = Directors.pid AND Directors.pid = people2.pid
```