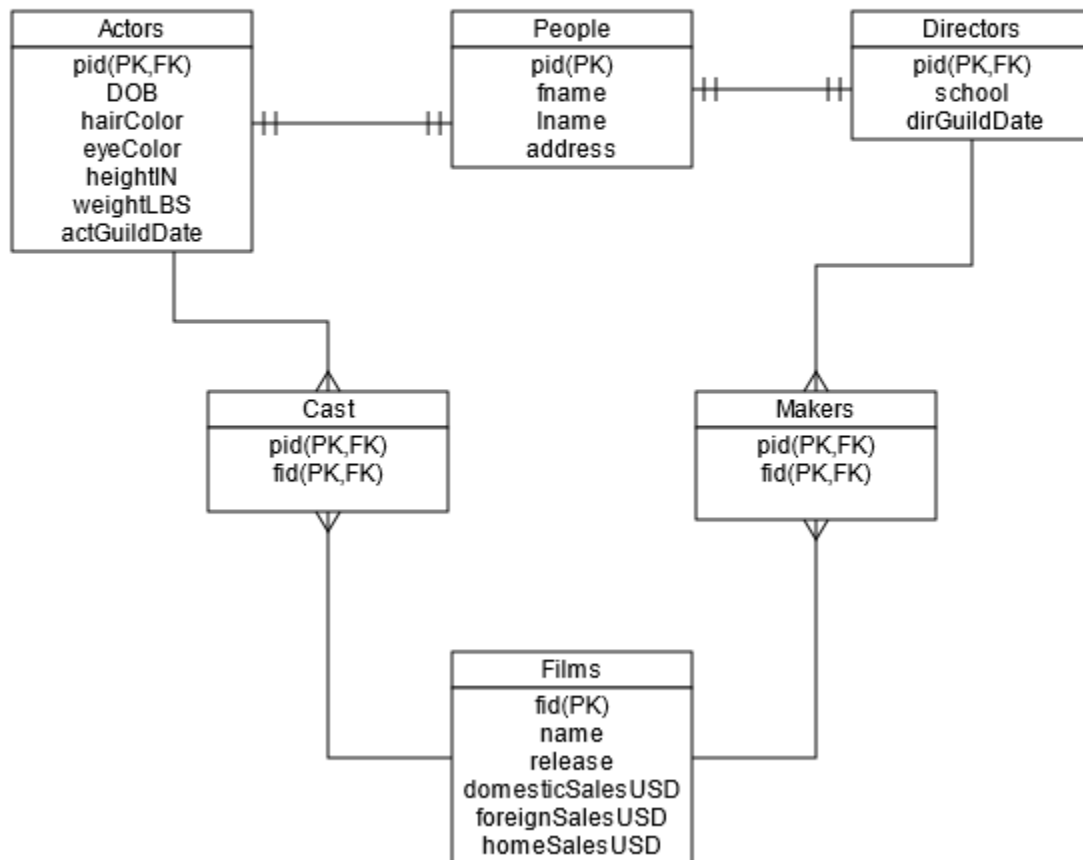


Normalization 2
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11/4/2013

--ER Diagram



--SQL create statements

--People

```
CREATE TABLE People (  
pid      int NOT NULL,  
fname    text NOT NULL,  
lname    text NOT NULL,  
address  text NOT NULL,
```

```
primary key(pid)
);
```

```
--Actors
```

```
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 Directors (
pid          int NOT NULL REFERENCES People(pid),
school       text NOT NULL,
dirGuildDate date NOT NULL,
primary key(pid)
);
```

```
--Films
```

```
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 Cast (
pid          int NOT NULL REFERENCES People(pid),
fid          int NOT NULL REFERENCES Films(fid),
primary key(pid, fid)
);
```

```
--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');
```

--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
```

