Stephen Bohner Lab 8

```
CREATE TABLE "FilmArtists" (
 "fid" INT NOT NULL,
 "name" VARCHAR(30) NOT NULL,
 "address" VARCHAR(30) NOT NULL,
 "spouseName" VARCHAR(30),
 PRIMARY KEY (fid)
);
CREATE TABLE "Actor" (
 "aid" INT NOT NULL,
 "fid" INT NOT NULL REFERENCES FilmArtists(fid),
 "birthDate" DATE,
 "hairColor" VARCHAR(30),
 "eyeColor" VARCHAR(30),
 "height" VARCHAR(30),
 "weightInLBS" DECIMAL(3,2),
 "favoriteColor" VARCHAR(30),
 "screenActorsGuildAnniDate" DATE,
 PRIMARY KEY (aid)
);
CREATE TABLE "Director" (
 "did" INT NOT NULL,
 "fid" INT NOT NULL REFERENCES FilmArtists(fid),
 "filmSchool" VARCHAR(30),
 "directorsGuildAnniDate" DATE,
 "favLensMaker" VARCHAR(30),
 PRIMARY KEY (did)
);
CREATE TABLE "D+M" (
 "MPAA" INT NOT NULL,
 "did" INT NOT NULL REFERENCES Directors(did)
 PRIMARY KEY (MPAA, did)
);
CREATE TABLE "A+M" (
 "MPAA" INT NOT NULL,
 "aid" INT NOT NULL REFERENCES Actors(aid)
 PRIMARY KEY (MPAA, aid)
);
```

```
CREATE TABLE "Movies" (
"MPAA" INT NOT NULL,
"did" INT NOT NULL REFERENCES Director(did),
"aid" INT NOT NULL REFERENCES Actor(aid),
"title" VARCHAR(30),
"yearReleased" NUMERIC(4),
"domesticOfficeSales" NUMERIC(10,2),
"foreignOfficeSales" NUMERIC(10,2),
"DVDblueRaySales" NUMERIC(10,2),
PRIMARY KEY (MPAA)
);
```

Functional Dependencies

fid → name, address, spouseName

did → filmSchool, directorsGuildAnniDate, favLensMaker

aid → birthDate, hairColor, eyeColor, height, weight, favoriteColor, screenActorsGuildAnniDate

MPAA → title, yearReleased, domesticOfficeSales, foreignOfficeSales, DVDblueRaySales

Query

```
SELECT name

FROM FilmArtists

WHERE fid IN (SELECT fid

FROM Director

WHERE did IN (SELECT did

FROM D+M

WHERE MPAA IN (SELECT MPAA

FROM A+M

WHERE aid IN (SELECT aid

FROM Actor

WHERE fid IN (SELECT fid

FROM FilmArtists

WHERE name = 'Keanu Reeves')))));
```

