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 "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  $\rightarrow$  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 Movies WHERE aid IN (SELECT aid

FROM Actor
WHERE fid IN (SELECT fid
FROM FilmArtists
WHERE name =
'Keanu Reeves'))));

