

Caleb Rogers

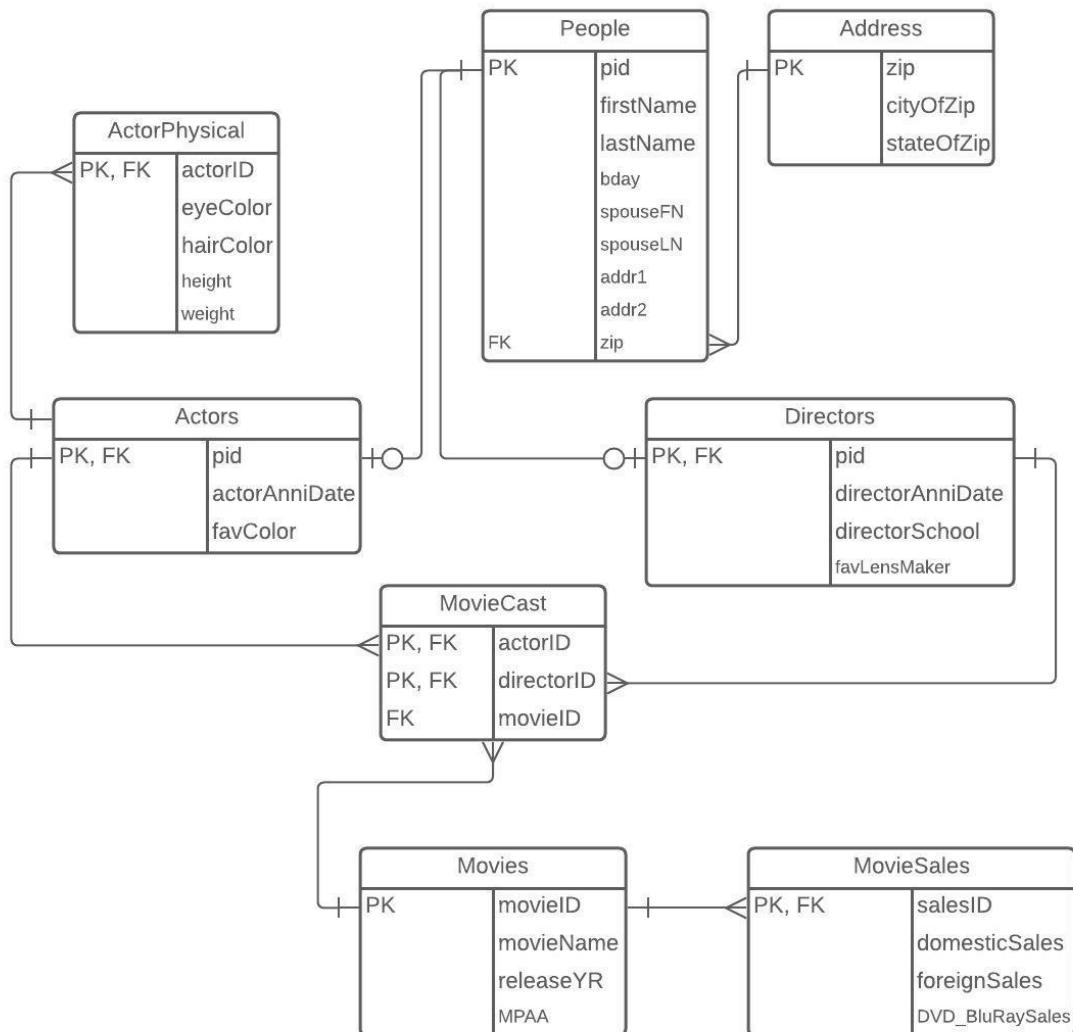
Professor Alan Labouseur

November 8th, 2020

Database Systems

Lab 8 – Normalization Two

1)



2)

```
11 -- Create Statements --
12 -- Address --
13 CREATE TABLE Address (
14     zip integer NOT NULL,
15     cityOfZip text,
16     stateOfZip text,
17     PRIMARY KEY(zip)
18 );
19
20 -- People --
21 CREATE TABLE People (
22     pid char(5) NOT NULL,
23     firstName text,
24     lastName text NOT NULL,
25     bday date,
26     spouseFn text,
27     spouseLN text,
28     addr1 text NOT NULL,
29     addr2 text,
30     zip integer NOT NULL references Address(zip),
31     PRIMARY KEY(pid)
32 );
33
34 -- Directors --
35 CREATE TABLE Directors (
36     pid char(5) NOT NULL references People(pid),
37     directorAnniDate date,
38     directorSchool text,
39     favLensMaker text,
40     PRIMARY KEY(pid)
41 );
```

```

43  -- Actors --
44  CREATE TABLE Actors (
45      pid char(5) NOT NULL references People(pid),
46      actorAnniDate date,
47      favColor text,
48      PRIMARY KEY(pid)
49  );
50
51  -- ActorPhysical --
52  CREATE TABLE ActorPhysical (
53      actorID char(5) NOT NULL references Actors(pid),
54      eyeColor text,
55      hairColor text,
56      height integer,
57      weight integer,
58      PRIMARY KEY(actorID)
59  );
60
61  -- Movies --
62  CREATE TABLE Movies (
63      movieID char(5) NOT NULL,
64      movieName text,
65      releaseYR integer,
66      MPAA integer,
67      PRIMARY KEY(movieID)
68  );

70  -- MovieCast --
71  CREATE TABLE MovieCast (
72      actorID char(5) NOT NULL references Actors(pid),
73      directorID char(5) NOT NULL references Directors(pid),
74      movieID char(5) NOT NULL references Movies(movieID),
75      PRIMARY KEY(actorID, directorID)
76  );
77
78  -- MovieSales --
79  CREATE TABLE MovieSales (
80      salesID char(5) NOT NULL references Movies(movieID),
81      domesticSales integer,
82      foreignSales integer,
83      DVD_BluRaySales integer,
84      PRIMARY KEY(salesID)
85  );

```

3)

Address: zip --> cityOfZip, stateOfZip

People: pid --> firstName, lastName, bday, spouseFN, spouseLN, addr1, addr2, zip

Directors: pid --> directorAnniDate, directorSchool, favLensMaker

Actors: pid --> actorAnniDate, favColor

ActorPhysical: actorID --> eyeColor, hairColor, height, weight

Movies: movieID --> movieName, releaseYR, MPAA

MovieCast: actorID, directorID --> movieID

MovieSales: salesID --> domesticSales, foreignSales, DVD_BluRaySales

4)

```
113 -- Query to show all the directors with whom actor "Roger Moore" has work --
114 select firstName,lastName
115 from people
116 where pid in (select pid
117                from directors
118                where pid in (select directorID
119                             from movieCast
120                             where actorID in (select pid
121                                                from actors
122                                                where pid in (select pid
123                                                             from people
124                                                             where lastName = 'Moore' and firstname = 'Roger'))));
```