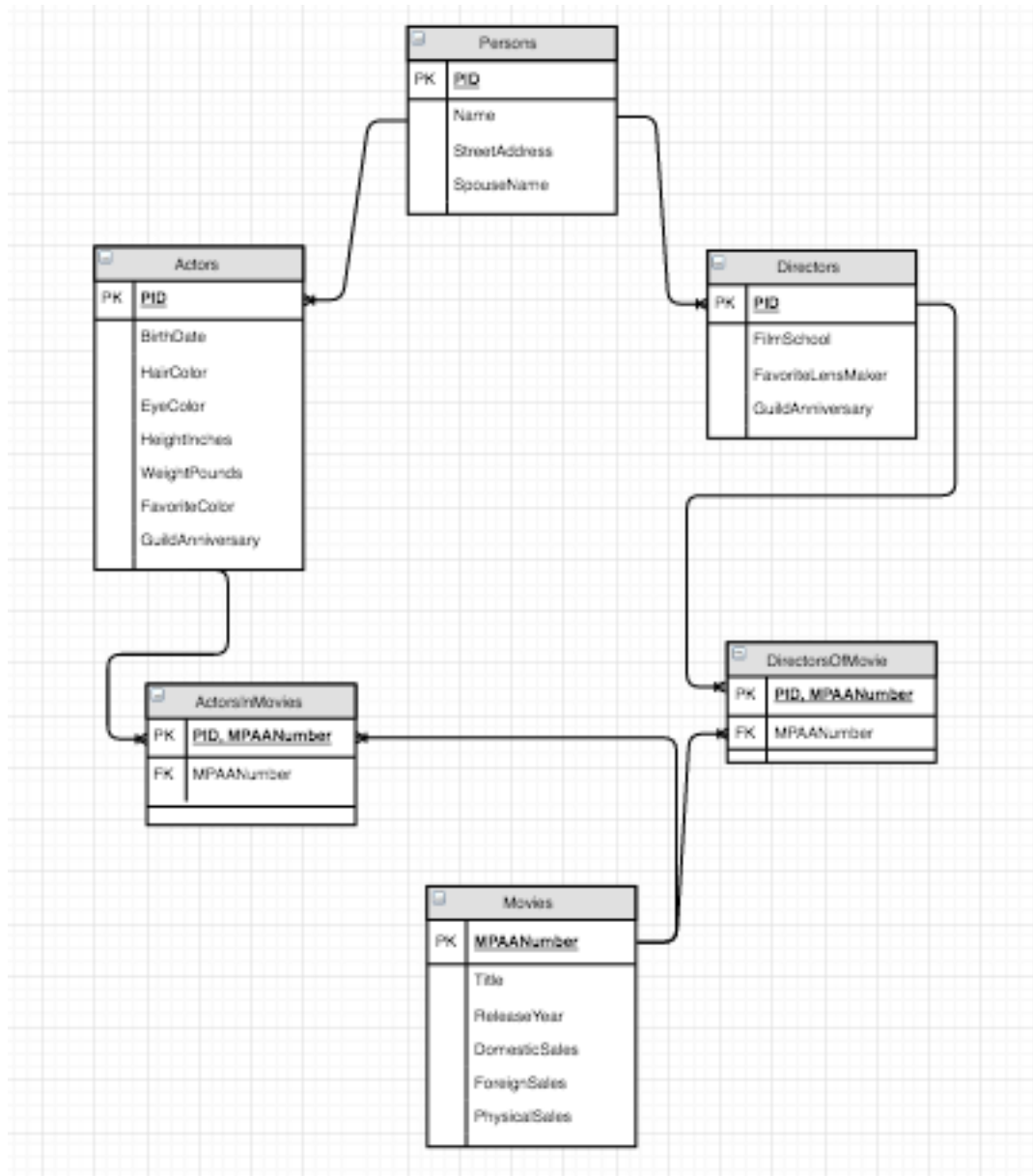Megan Makini
Dr. Alan Labouseur
Database Management
10 November 2016
<div align="center">Lab 8: Normalization Two</div>

1.
2. SQL statements

```
a. --Persons--
   CREATE TABLE persons (
        pid             char(4) not null,
        name            text,
        address         text,
        spousename      text,
```

```
       primary key (pid)
     );
  b. --Actors--
     CREATE TABLE actors (
          pid            char(4) not null,
          birthdate      date,
          haircolor      text,
          eyecolor       text,
          height         numeric(3,2),
          weight         numeric(3,2),
          favoritecolor  text,
          actorsguild    date,
      primary key (pid)
     );
  c. --Directors--
     CREATE TABLE directors (
          pid            char(4) not null,
          filmschool     text,
          favlensmaker   text,
          directorsguild date,
      primary key (pid)
     );
  d. --ActorsInMovie--
     CREATE TABLE appearances (
          pid            char(4) not null,
          MPAAnumber     numeric(5),
      primary key (pid, MPAANumber)
      foreign key (MPAANumber)
     );
  e. --DirectorsOfMovie--
     CREATE TABLE works (
          pid            char(4) not null,
          MPAAnumber     numeric(5),
      primary key (pid, MPAANumber)
      foreign key (MPAANumber)
     );
  f. --Movies--
     CREATE TABLE movies (
          MPAANumber     numeric(5),
          ReleaseYear    numeric(4),
          DomesticSales  numeric(10,2),
          ForeignSales   numeric(10,2),
          PhysicalSales  numeric(10,2),
      primary key (MPAAnumber)
     );
```
3. Functional dependencies

a. pid → name, address, spousename, birthdate, haircolor, eyecolor, heightIN, weightLB, favoritecolor, screenactorsguild, filmschool, favoritelensmaker, directorsguild, MPAANumber

b. MPAANumber → releaseyear, domseticsales, foreignsales, physicalsales

4. Write a query to show all the directors with whom actor "Sean Connery" has worked.

```
select d.pid, p.name
from p.persons inner join d.directors on p.pid = d.pid
               inner join a.actors    on p.pid = a.pid
               inner join a.appearances on p.pid = a.aid
               inner join w.works on p.pid = w.pid
where p.name = 'Sean Connery'
  and a.MPAANumber = W.MPAANumber
```