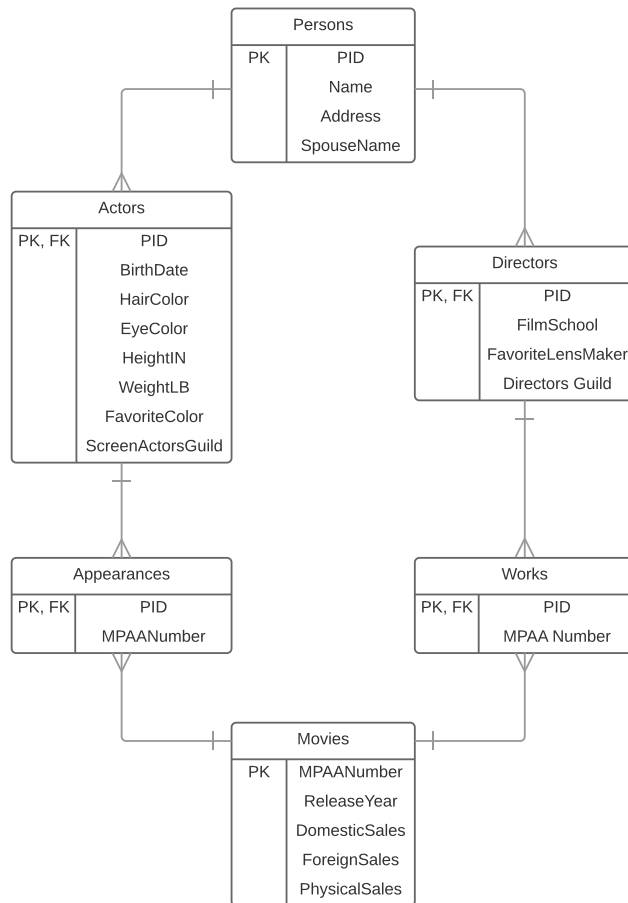Megan Makini
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Database Management
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Lab 8: Normalization Two

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. --Appearances--
```
CREATE TABLE appearances (
        pid             char(4) not null,
        MPAAnumber      numeric(5),
     primary key (pid)
    );
```

e. --Works--
```
CREATE TABLE works (
        pid             char(4) not null,
        MPAAnumber      numeric(5),
     primary key (pid)
    );
```

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
   b. pid → birthdate, haircolor, eyecolor, heightIN, weightLB, favoritecolor, screenactorsguild
   c. pid → filmschool, favoritelensmaker, directorsguild
   d. pid → MPAANumber
   e. MPAANumber → releseyear, 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
```