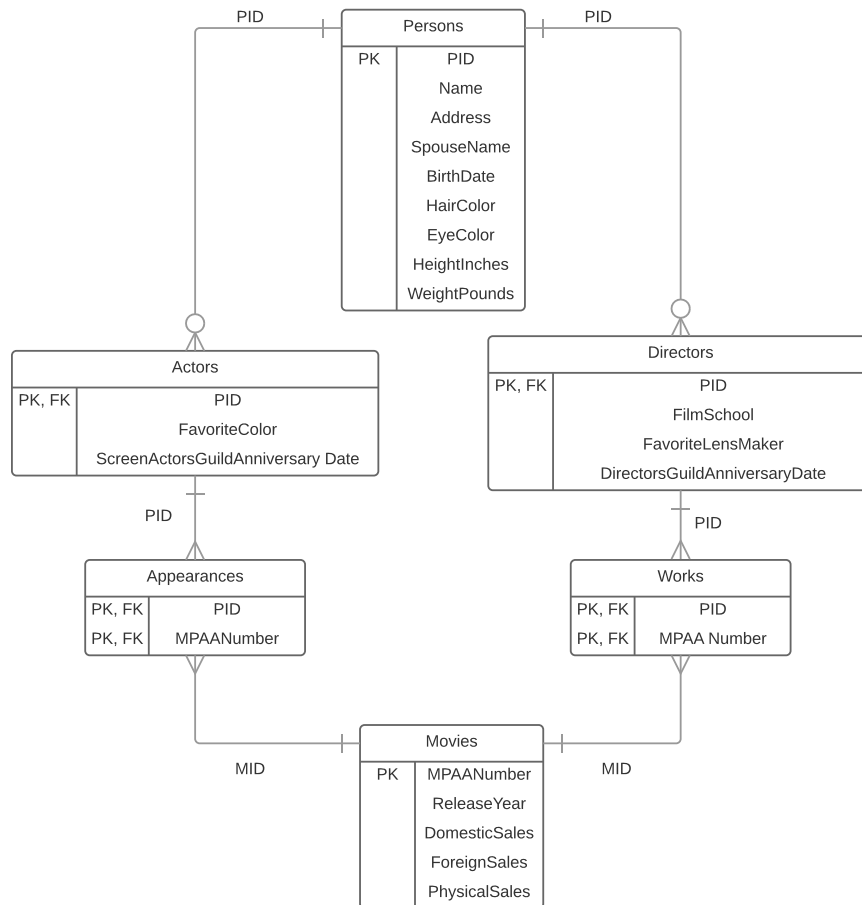


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Database Management
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Lab 8: Normalization Two



- 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. --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. $\text{pid} \rightarrow \text{name, address, spousename, birthdate, haircolor, eyecolor, heightIN, weightLB, favoritecolor, screenactorsguild, filmschool, favoritelensmaker, directorsguild, MPAAnumber}$
- b. $\text{MPAAnumber} \rightarrow \text{releaseyear, domseticsales, foreignsales, physicalsales}$

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
```