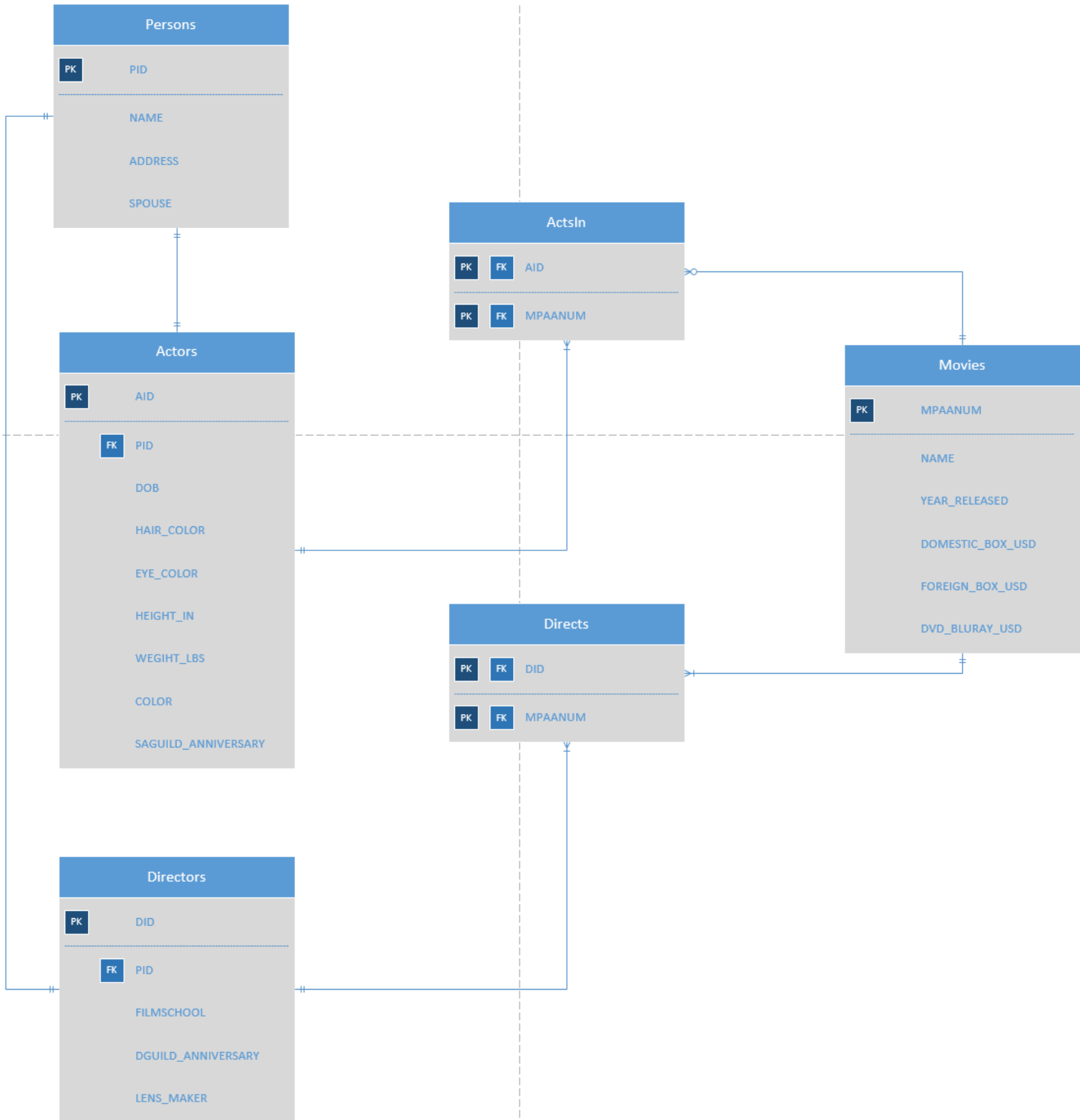


1. ER DIAGRAM:



2. Create Statements:

```
DROP TABLE IF EXISTS Persons;
DROP TABLE IF EXISTS Actors;
DROP TABLE IF EXISTS Directors;
DROP TABLE IF EXISTS ActsIn;
DROP TABLE IF EXISTS Directs;
DROP TABLE IF EXISTS Movies;

CREATE TABLE Persons(
    PID char(4) not null,
    NAME text not null,
    ADDRESS text,
    SPOUSE text,
    primary key(PID)
);

CREATE TABLE Actors(
    AID char(4) not null,
    PID char(4) not null references Persons(PID),
    DOB date,
    HAIR_COLOR text not null,
    EYE_COLOR text not null,
    HEIGHT_IN integer not null,
    WEIGHT_LBS integer not null,
    COLOR text,
    SAGUILD_ANNIVERSARY date,
    primary key(AID)
);

CREATE TABLE Directors(
    DID char(4) not null,
    PID char(4) not null references Persons(PID),
    FILMSCHOOL text,
    DGUILD_ANNIVERSARY date,
    LENS_MAKER text,
    primary key(DID)
);

CREATE TABLE ActsIn(
    AID char(4) not null references Actors(AID),
    MPAANUM int not null references Movies(MPAANUM),
    primary key(AID,MPAANUM)
);

CREATE TABLE Directs(
    DID char(4) not null references Directors(DID),
```

```
        MPAANUM int not null references Movies(MPAANUM),  
        primary key(DID,MPAANUM)  
);  
  
CREATE TABLE Movies(  
    MPAANUM int not null,  
    NAME text not null,  
    YEAR_RELEASED int not null,  
    DOMESTIC_BOX_USD int,  
    FOREIGN_BOX_USD int,  
    DVD_BLURAY_USD int,  
    primary key(MPAANUM)  
);
```

3. Functional Dependencies

- Persons
 - $PID \rightarrow NAME, ADDRESS, SPOUSE$
- Actors
 - $PID \rightarrow AID$
 - $AID \rightarrow DOB, HAIR_COLOR, EYE_COLOR, HEIGHT_IN, WEIGHT_LBS, COLOR, SAGUILD_ANNIVERSARY$
- Directors
 - $PID \rightarrow DID$
 - $DID \rightarrow FILMSCHOOL, DGUILD_ANNIVERSARY, LENS_MAKER$
- ActsIn
 - $MPAANUM \rightarrow AID$
- Directs
 - $MPAANUM \rightarrow DID$
- Movies
 - $MPAANUM \rightarrow NAME, YEAR_RELEASED, DOMESTIC_BOX_USD, FOREIGN_BOX_USD, DVD_BLURAY_USD$

4.

```
SELECT *  
FROM Directors  
WHERE DID IN (SELECT DID  
              FROM Directs  
              WHERE MPAANUM IN(  
                SELECT MPAANUM  
                FROM ActsIn  
                WHERE AID IN (  
                  SELECT AID  
                  FROM Actors  
                  WHERE NAME='Sean Connery')))
```