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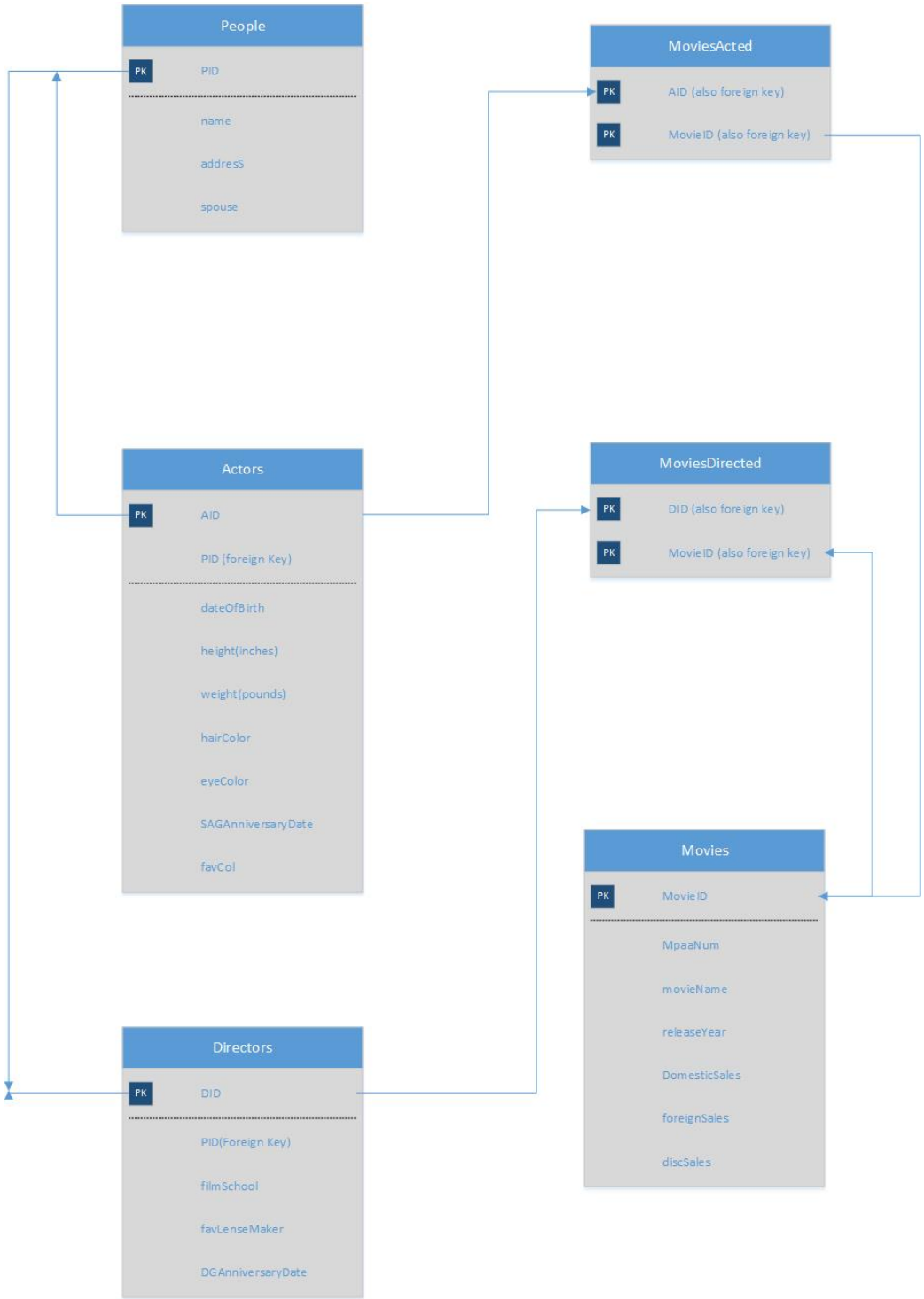
Database Management - Lab 8
1. ER diagram



2. SQL create statements for each table.

```
CREATE TABLE Movies
(
MovieID int PRIMARY KEY NOT NULL,
MpaaNum int NOT NULL,
movieName TEXT NOT NULL,
releaseYear int NOT NULL,
domesticSales int NOT NULL,
foreignSales int NOT NULL,
discSales int NOT NULL,
);

CREATE TABLE People
(
PID CHAR(5) PRIMARY KEY NOT NULL,
name TEXT NOT NULL,
address TEXT NOT NULL,
spouseName TEXT,
);

CREATE TABLE Actors
(
AID CHAR(5) PRIMARY KEY NOT NULL,
PID CHAR(5) FOREIGN KEY REFERENCES People(PID) NOT NULL,
dateOfBirth Date NOT NULL,
eyeColor TEXT NOT NULL,
hairColor TEXT NOT NULL,
height int NOT NULL,
weight int NOT NULL,
favColor TEXT,
SAGAnniversaryDate DATE,
);

CREATE TABLE Directors
(
DID CHAR(5) PRIMARY KEY NOT NULL,
PID CHAR(5) FOREIGN KEY REFERENCES People(PID) NOT NULL,
filmSchool TEXT,
favLenseMaker TEXT,
```

3. Functional dependencies for each table.

People

PID → name, address, spouse

Actors

AID → dateOfBirth, hairColor, eyeColor, height, weight, favColor, SAGAnniversaryDate

PID → AID PID in People to AID in Actors

Directors

DID → filmSchoolAttended, DGAnniversaryDate, favoriteLens

PID→DID PID in People to AID in Actors

MoviesActed

MovieID → AID

MoviesDirected

MovieID→DID

Movies

MovieID → MpaaNum, movieName, yearReleased, domesticSales, foreignSales, diskSales

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

```
SELECT *
FROM People
WHERE PID in (
        SELECT PID
        FROM Directors
        WHERE DID in (
                SELECT DID
                FROM MoviesDirected
                WHERE MovieID in (
                        SELECT MovieID
                        FROM MoviesActed
                        WHERE AID in (
                                SELECT AID
                                FROM Actors
                                WHERE name = ‘Sean Connery’
                                        ) ) ) );
```