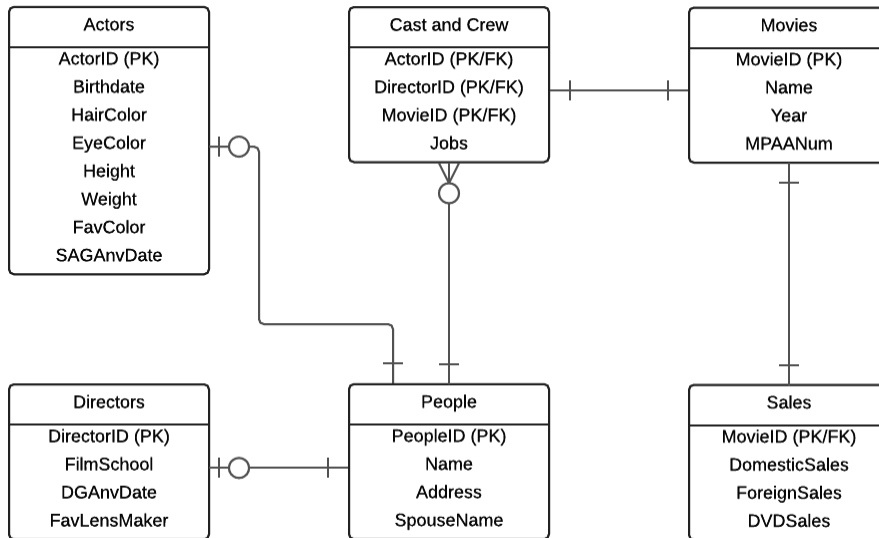


Kim Coterwas

Lab 8

1. A fully decorated and aesthetically beautiful E/R diagram.



2. SQL create statements for each table.

```
CREATE TABLE Directors (  
    DirectorID char(100) not null,  
    FilmSchool text,  
    DGAnvDate date,  
    FavLensMaker text,  
    PRIMARY KEY (DirectorID)  
);
```

```
CREATE TABLE Actors (  
    ActorID char(100) not null,
```

```
Birthdate date,  
HairColor text,  
EyeColor text,  
Height integer,  
Weight integer,  
FavColor text,  
SAGAnvDate date,  
PRIMARY KEY (ActorID)  
);
```

```
CREATE TABLE Movies (  
MovieID char(100) not null,  
Name text,  
Year integer,  
MPAANum integer,  
PRIMARY KEY (MovieID)  
);
```

```
CREATE TABLE People (  
PeopleID char(100) not null,  
Name text,  
Address varchar(100),  
SpouseName text,  
PRIMARY KEY (PeopleID)  
);
```

```

CREATE TABLE Sales (
    MovieID char(100) not null references Movies(MovieID),
    DomesticSales numeric(12, 2),
    ForeignSales numeric(12, 2),
    DVDSales numeric(12, 2),
    PRIMARY KEY (MovieID)
);

```

```

CREATE TABLE Cast_and_Crew (
    ActorID char(100) not null references Actors(ActorID),
    DirectorID char(100) not null references Directors(DirectorID),
    MovieID char(100) not null references Movies(MovieID),
    Jobs char(100),
    PRIMARY KEY(ActorID, DirectorID, MovieID)
);

```

3. Functional dependencies for each table.

DirectorID |--> FilmSchool, DGAnvDate, FavLensMaker

ActorID |--> Birthdate, HairColor, EyeColor, Height, Weight, FavColor, SAGAnvDate

MovieID |--> Name, Year, MPAANum, DomesticSales, ForeignSales, DVDSales

PeopleID |--> Name, Address, SpouseName

(ActorID, DirectorID, MovieID) |--> Jobs

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

```

SELECT name
FROM Directors

```

```
WHERE DirectorID (SELECT DirectorID
FROM Cast_and_Crew
WHERE MovieID (SELECT MovieID
FROM Cast_and_Crew
WHERE ActorID IN (SELECT ActorID
FROM Actors
WHERE name = 'Keanu Reeves'))));
```