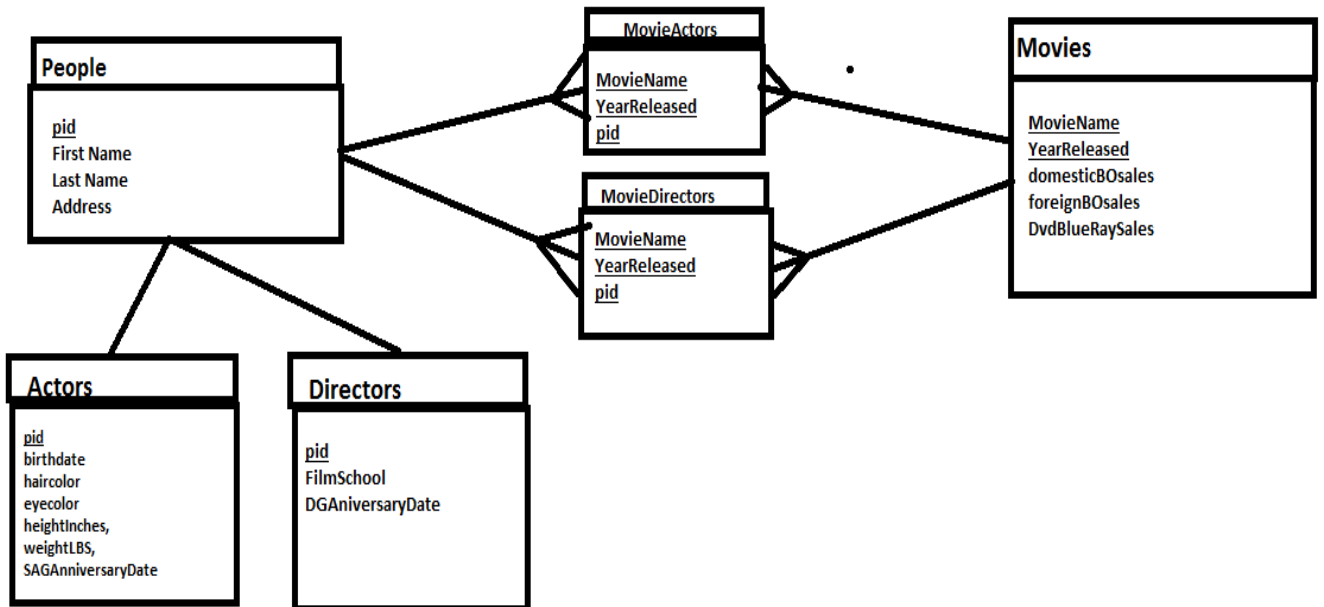


Andrew Langford

Normalization Homework 2

11/4/13

ER Diagram for the EON Database



Create Table Statements for EON Database

```
create table People(  
pid integer not null primary key,  
firstname text not null,  
lastname text not null,  
address text not null  
);
```

```
create table Actors(  
pid integer not null,  
birthdate date not null,  
haircolor varchar(20) not null,  
eyecolor varchar(20) not null,
```

```
heightInches int not null,  
weightLbs int not null,  
SAGAnniversaryDate date not null,  
primary key(pid),  
foreign key(pid) references People(pid)  
);
```

```
create table Directors(  
pid integer not null,  
FilmSchool text not null,  
DGAnniversaryDate date not null,  
primary key(pid),  
foreign key(pid) references People(pid)  
);
```

```
create table Movies(  
MovieName text not null,  
YearReleased int not null,  
domesticBOsales decimal(20,2) not null,  
foreignBOsales decimal(20,2) not null,  
DVDBlueRaysales decimal(20,2) not null,  
primary key(MovieName,YearReleased)  
);
```

```
create table MovieActors(  
MovieName text not null,  
YearReleased int not null,  
pid int not null,  
primary key (MovieName,YearReleased, pid),  
foreign key(MovieName,YearReleased) references  
Movies(MovieName,YearReleased),  
foreign key(pid) references People(pid),  
foreign key(pid) references Actors(pid)  
);
```

```
create table MovieDirectors(  
MovieName text not null,  
YearReleased int not null,  
pid int not null,  
primary key(MovieName,YearReleased,pid),  
foreign key(MovieName,YearReleased) references  
Movies(MovieName,YearReleased),  
foreign key(pid) references People(pid),  
foreign key(pid) references Directors(pid)  
);
```

Insert Statements for EON Database

```
insert into People
(pid, firstname, lastname, address)values
(1, 'Sean', 'Connery', '9830 Wilshire Blvd, Beverly Hills,
CA'),
(2, 'Steven', 'Spielberg', '100 Universal City Plaza,
Universal City, CA'),
(3, 'Terrence', 'Young', ' '),
(4, 'Alfred', 'Hitchcock', ' '),
(5, 'Clint', 'Eastwood', '26270 Dolores Street, Carmel,
CA'),
(6, 'Quentin', 'Tarentino', ' 7966 Beverly Boulevard, Los
Angeles, CA'),
(7, 'Samuel', 'Jackson', ' 5128 Encino Ave, Los Angeles,
CA'),
(8, 'John', 'Travolta', '1786 Magnolia Blvd, Ocala, FL')
```

```
insert into Actors(pid, birthdate, haircolor, eyecolor, heightInches,
weightLBs, SAGAnniversaryDate)values
(1, '1930-8-30', 'Black', 'Brown', 66, 165, '1985-04-08'),
(4, '1916-01-01', 'Black', 'Blue', 60, 135, '1960-09-08'),
(5, '1960-03-19', 'Black', 'Brown', 70, 185, '1975-07-09'),
(6, '1969-06-13', 'Black', 'Green', 57, 155, '1990-11-22'),
(7, '1972-12-20', 'Black', 'Brown', 70, 195, '1986-12-17'),
(8, '1973-06-30', 'Black', 'Blue', 72, 215, '1999-05-20')
```

```
insert into Directors(pid,FilmSchool, DGAnniversaryDate)values
(2, 'Edinburgh College of Directors', '1967-12-30'),
(3, 'Berkeley', '1942-07-17'),
(4, 'Cambridge', '1950-05-27'),
(5, 'University of Colorado', '1965-12-17'),
(6, 'Purchase', '1980-06-03')
```

```
insert into Movies(MovieName, YearReleased, domesticBOsales,
foreignBOsales, DVDBlueRaysales)values
('Pulp Fiction', 1994, 100000000.89, 5000000.36, 24000000.86),
```

```
    ('Indiana Jones and the Last Crusade', 1989, 309018342798.00,  
192841942.78, 12839012.99),  
    ('Action of the Tiger', 1957, 12378412983712.89,  
12478912847128947.44, 1238123123.88),  
    ('Marnie', 1964, 128341284124124.77, 120948124.78, 102948124.05),  
    ('Psycho', 1960, 1248129412412.33, 10928401842914.88,  
120948124.76),  
    ('Gran Torino', 2008, 120948120948124.12, 1248124,17, 0.00)
```

```
insert into MovieActors(MovieName, YearReleased, pid)values  
    ('Pulp Fiction', 1994, 6),  
    ('Pulp Fiction', 1994, 7),  
    ('Pulp Fiction', 1994, 8),  
    ('Indiana Jones and the Last Crusade', 1989, 1),  
    ('Action of the Tiger', 1957, 1),  
    ('Marnie', 1964, 1),  
    ('Psycho',1960, 4),  
    ('Gran Torino', 2008, 5)
```

```
insert into MovieDirectors(MovieName, YearReleased, pid) values  
    ('Pulp Fiction', 1994, 6),  
    ('Indiana Jones and the Last Crusade', 1989, 2),  
    ('Action of the Tiger', 1957, 3),  
    ('Marnie', 1964, 4),  
    ('Psycho', 1960, 4),  
    ('Gran Torino', 2008, 5)
```

Functional Dependencies

-by table

People:

pid => Firstname, LastName, Address

Actors:

Pid => birthdate, haircolor, eyecolor, heightInches, weightLBs,
SAGAnniversaryDate

Directors:

pid => FilmSchool, DGAnniversaryDate

Movies:

MovieName, YearReleased => domesticBOsales, foreignBOsales,
DVDBBlueRaysales

MovieActors:

The whole table is a primary key

MovieDirectors:

The whole table is a primary key.

Select Statement

-This will return any director who Sean Connery has worked with.

```
select FirstName, LastName
from People
where pid in(
    select D.pid
    from MovieDirectors D
    full outer join MovieActors A
    on D.MovieName = A.MovieName
    and D.YearReleased = A.YearReleased
    where A.pid = (
        select pid
        from People
        where FirstName = 'Sean'
        and LastName = 'Connery'));
```