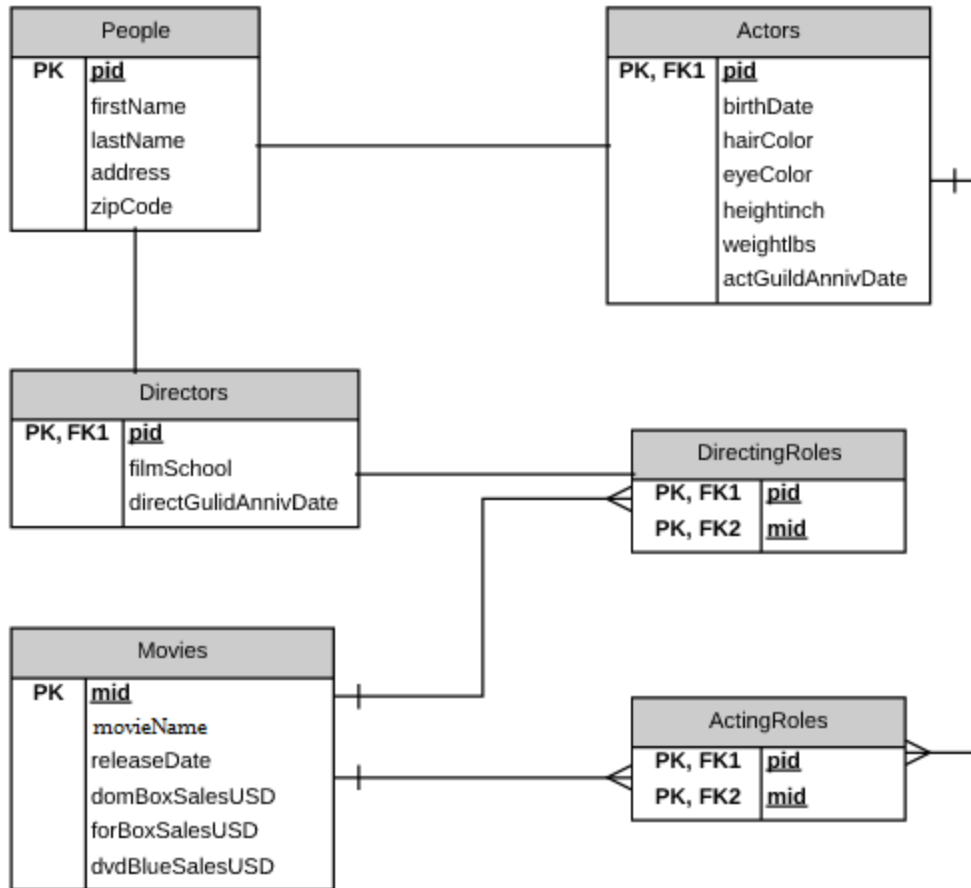


## Lab 8

### E-R Diagram



### Creating Tables Code:

```

-- People --
CREATE TABLE people(
  pid      char(4) not null,
  firstName text,
  lastName text,
  address  text,
  zipCode  char(5),
  primary key(pid)
);
  
```

-- Directors --

```
CREATE TABLE directors (  
  pid          char (4) not null references people(pid),  
  filmSchool   text,  
  directGuildAnnivDate  date,  
  primary key(pid)  
);
```

-- Actors--

```
CREATE TABLE actors (  
  pid          char(4) not null references people(pid),  
  birthDate    date,  
  hairColor    text,  
  eyeColor     text,  
  heightINCH   integer,  
  weightLBS    integer,  
  actGuildAnnivDate  date,  
  primary key(pid)  
);
```

-- Movies --

```
CREATE TABLE movies (  
  mid          char(4) not null,  
  movieName    text,  
  releaseDate  date,  
  domBoxSalesUSD  numeric(12,2),  
  forBoxSalesUSD  numeric(12,2),  
  dvdBlueSalesUSD  numeric(12,2),  
  primary key(mid)  
);
```

-- Acting Roles --

```
CREATE TABLE actingRoles (  
  pid  char(4) not null references people(pid),  
  mid  char(4) not null references movies(mid),  
  primary key(pid, mid)  
);
```

-- Directing Roles --

```
CREATE TABLE directingRoles (  
  pid  char(4) not null references people(pid),  
  mid  char(4) not null references movies(mid),  
  primary key(pid, mid)  
);
```

### Inserting into tables code:

-- People --

```
INSERT INTO people(pid, firstName, lastName, address, zipCode )  
VALUES('p001', 'Rosemary', 'Bulgarelli', 'P.O. Box 231', '24445');
```

```
INSERT INTO people(pid, firstName, lastName, address, zipCode )  
VALUES('p002', 'Emma', 'Watson', 'Hogwarts', '12345');
```

```
INSERT INTO people(pid, firstName, lastName, address, zipCode )  
VALUES('p003', 'Sean', 'Connery', '123 Trebek Lane', '43110');
```

```
INSERT INTO people(pid, firstName, lastName, address, zipCode )  
VALUES('p004', 'Tom', 'Cruise', '9 Goose Road', '25802');
```

```
INSERT INTO people(pid, firstName, lastName, address, zipCode )  
VALUES('p005', 'Logan', 'Lerman', '25 Wallflower Street ', '26805');
```

```
INSERT INTO people(pid, firstName, lastName, address, zipCode )  
VALUES('p006', 'Brad', 'Pitt', '2 Sheeps Meadow Drive', '24455');
```

```
INSERT INTO people(pid, firstName, lastName, address, zipCode )  
VALUES('p007', 'Ryan', 'Gosling', '1 Love Lane', '12541');
```

```
INSERT INTO people(pid, firstName, lastName, address, zipCode )  
VALUES('p008', 'Zac', 'Efron', '17 Again Road', '34562');
```

-- Directors --

```
INSERT INTO directors( pid, filmSchool, directGuildAnnivDate )  
VALUES('p001', 'Film School in NY 1', '2010-06-21');
```

```
INSERT INTO directors( pid, filmSchool, directGuildAnnivDate )  
VALUES('p002', 'Film School in LA', '2000-09-21');
```

```
INSERT INTO directors( pid, filmSchool, directGuildAnnivDate )  
VALUES('p003', 'Film School in NY 2', '1985-05-15');
```

```
INSERT INTO directors( pid, filmSchool, directGuildAnnivDate )  
VALUES('p006', 'Film School in LA 2', '1995-01-18');
```

```
INSERT INTO directors( pid, filmSchool, directGuildAnnivDate )  
VALUES('p007', 'Film School in Europe', '2002-10-4');
```

--Actors --

```
INSERT INTO actors( pid, birthDate, hairColor, eyeColor, heightINCH,
weightLBS,actGuildAnnivDate)
```

```
VALUES('p002', '1990-04-15','black', 'brown', 70, 130, '2000-10-17');
```

```
INSERT INTO actors( pid, birthDate, hairColor, eyeColor, heightINCH,
weightLBS,actGuildAnnivDate)
```

```
VALUES('p003', '1930-08-25','white', 'green', 60, 180, '1950-09-25');
```

```
INSERT INTO actors( pid, birthDate, hairColor, eyeColor, heightINCH,
weightLBS,actGuildAnnivDate)
```

```
VALUES('p004', '1962-07-3','black', 'blue', 72, 160, '2010-11-30');
```

```
INSERT INTO actors( pid, birthDate, hairColor, eyeColor, heightINCH,
weightLBS,actGuildAnnivDate)
```

```
VALUES('p007', '1987-10-18','brown', 'green', 60, 150, '2006-01-13');
```

-- Movies --

```
INSERT INTO movies( mid, movieName, releaseDate, domBoxSalesUSD, forBoxSalesUSD,
dvdBlueSalesUSD)
```

```
VALUES('m001', 'Seventeen Again', '2009-11-13',300.00, 200.00, 180.00);
```

```
INSERT INTO movies( mid, movieName, releaseDate, domBoxSalesUSD,
forBoxSalesUSD,dvdBlueSalesUSD)
```

```
VALUES('m002', 'Perks of being a Wallflower', '2012-12-25',340.00, 210.00, 100.00);
```

```
INSERT INTO movies( mid, movieName, releaseDate, domBoxSalesUSD,
forBoxSalesUSD,dvdBlueSalesUSD)
```

```
VALUES('m003', 'Harry Potter', '2001-11-13',430.00, 210.00, 170.00);
```

```
INSERT INTO movies( mid, movieName, releaseDate, domBoxSalesUSD,
forBoxSalesUSD,dvdBlueSalesUSD)
```

```
VALUES('m004', 'Top Gun', '1986-03-18',432.00, 219.00, 70.00);
```

```
INSERT INTO movies( mid, movieName, releaseDate, domBoxSalesUSD,
forBoxSalesUSD,dvdBlueSalesUSD)
```

```
VALUES('m005', 'Dr. No', '1962-01-29',530.00, 610.00, 1070.00);
```

```
-- Acting Roles --
INSERT INTO actingRoles( pid, mid)
VALUES('p002', 'm002');

INSERT INTO actingRoles( pid, mid)
VALUES('p002', 'm003');

INSERT INTO actingRoles( pid, mid)
VALUES('p003', 'm005');

INSERT INTO actingRoles( pid, mid)
VALUES('p004', 'm004');

INSERT INTO actingRoles( pid, mid)
VALUES('p007', 'm001');

-- Directing Roles --
INSERT INTO directingRoles( pid, mid)
VALUES('p003', 'm004');

INSERT INTO directingRoles( pid, mid)
VALUES('p003', 'm002');

INSERT INTO directingRoles( pid, mid)
VALUES('p006', 'm004');

INSERT INTO directingRoles( pid, mid)
VALUES('p007', 'm001');

INSERT INTO directingRoles( pid, mid)
VALUES('p008', 'm002');

INSERT INTO directingRoles( pid, mid)
VALUES('p008', 'm005');

INSERT INTO directingRoles( pid, mid)
VALUES('p005', 'm004');

INSERT INTO directingRoles( pid, mid)
VALUES('p006', 'm003');

INSERT INTO directingRoles( pid, mid)
VALUES('p006', 'm005');

INSERT INTO directingRoles( pid, mid)
VALUES('p001', 'm005');
```

## Functional Dependencies

People Table: pid → firstName, lastName, address, zipCode

Actors Table: pid → birthDate, hairColor, eyeColor, heightinch, weightlbs, actGuildAnnivDate

Directors Table: pid → filmSchool, directGuildAnnivDate

Movies Table: mid → movieName, relaseDate, domBoxSalesUSD, forBoxSalesUSD, dvdBlueSalesUSD

Acting Roles Table : pid, mid → (they depend on each other to make the table)

Directing Roles Table: pid, mid → (they depend on each other to make the table)

## A query finding all the directors with whom actor "Sean Connery" has worked

```
select  firstName as "Director First Name",
        lastName  as "Director Last Name"
from people
where pid in (select pid
              from directingRoles
              where mid in (select mid
                           from actingRoles
                           where pid in (select pid
                                         from people
                                         where firstName = 'Sean'
                                         and lastName = 'Connery'
                                       )
                           )
              )
order by lastName ASC;
```