

1) E / R Diagram is at the end...

```
DROP TABLE IF EXISTS guild_winners;
```

```
DROP TABLE IF EXISTS directors;
```

```
DROP TABLE IF EXISTS actors;
```

```
DROP TABLE IF EXISTS actors_in_movies;
```

```
DROP TABLE IF EXISTS directors_in_movies;
```

```
DROP TABLE IF EXISTS movies;
```

```
DROP TABLE IF EXISTS people;
```

```
-- People --
```

```
CREATE TABLE people (  
    pid      char(4) not null,  
    first_name text,  
    last_name text,  
    DOB_YYYY_MM_DD date,  
    primary key(pid)  
);
```

```
-- Actors --
```

```
CREATE TABLE actors (  
    aid      char(3) not null references people(pid),  
    hair_color text,  
    eye_color text,  
    height_inches integer,  
    weight_lbs integer,  
    primary key(aid)  
);
```

-- Directors --

```
CREATE TABLE directors (  
  did          char(3) not null references people(pid),  
  film_school   text,  
  spouse_first_name text,  
  spouse_last_name text,  
  primary key(did)  
);
```

-- Guild Winners --

```
CREATE TABLE guild_winners (  
  pid          char(3) not null references people(pid),  
  year_won     integer,  
  as_star      boolean,  
  as_director  boolean,  
  primary key(pid)  
);
```

-- Movies--

```
CREATE TABLE movies (  
  mid          char(5) not null,  
  name         text,  
  year_released integer,  
  primary key(mid)  
);
```

-- Actors_in_movies--

```
CREATE TABLE actors_in_movies (  

```

```
pid          char(3) not null references people(pid),
mid          char(3) not null references movies(mid),
mpaa_rating  char(5),
primary key(pid, mid)
);
```

-- Directors_in_movies--

```
CREATE TABLE directors_in_movies (
pid          char(3) not null references people(pid),
mid          char(3) not null references movies(mid),
domestic_sales$  integer,
primary key(pid, mid)
);
```

-- SQL statements for loading example data: --

-- People --

```
INSERT INTO people( pid, first_name, last_name, DOB_YYYY_MM_DD )
VALUES('1', 'Sean', 'Connery', '08/25/1930');
```

```
INSERT INTO people( pid, first_name, last_name, DOB_YYYY_MM_DD )
VALUES('2', 'Honor', 'Blackman', '08/22/1925');
```

```
INSERT INTO people( pid, first_name, last_name, DOB_YYYY_MM_DD )
VALUES('3', 'Ben', 'Affleck', '08/15/1972');
```

```
INSERT INTO people( pid, first_name, last_name, DOB_YYYY_MM_DD )
VALUES('4', 'Johnny', 'Depp', '06/09/1963');
```

```
INSERT INTO people( pid, first_name, last_name, DOB_YYYY_MM_DD )  
VALUES('5', 'Keira', 'Knightley', '03/26/1985');
```

```
INSERT INTO people( pid, first_name, last_name, DOB_YYYY_MM_DD )  
VALUES('6', 'Guy', 'Hamilton', '09/16/1922');
```

```
INSERT INTO people( pid, first_name, last_name, DOB_YYYY_MM_DD )  
VALUES('7', 'Gore', 'Verbinski', '03/16/1964');
```

--Actors--

```
INSERT INTO actors( aid, hair_color, eye_color, height_inches, weight_lbs )  
VALUES('1', null, null, null, null);
```

```
INSERT INTO actors( aid, hair_color, eye_color, height_inches, weight_lbs )  
VALUES('2', 'grey', 'blue', 66, 125);
```

```
INSERT INTO actors( aid, hair_color, eye_color, height_inches, weight_lbs )  
VALUES('3', 'black', 'black', 76, 216);
```

```
INSERT INTO actors( aid, hair_color, eye_color, height_inches, weight_lbs )  
VALUES('4', 'brown', 'brown', 70, 157);
```

```
INSERT INTO actors( aid, hair_color, eye_color, height_inches, weight_lbs )  
VALUES('5', 'brown', 'brown', 67, 119);
```

--Directors--

```
INSERT INTO directors( did, film_school, spouse_first_name, spouse_last_name )  
VALUES('3', null, null, null);
```

```
INSERT INTO directors( did, film_school, spouse_first_name, spouse_last_name )
```

```
VALUES('6', null, 'Naomi', 'Chance');
```

```
INSERT INTO directors( did, film_school, spouse_first_name, spouse_last_name )  
VALUES('7', 'UCLA Film School', null, null);
```

```
--Guild Winners--
```

```
INSERT INTO guild_winners( pid, year_won, as_star, as_director )  
VALUES('3', 2012, 'yes', 'no');
```

```
INSERT INTO guild_winners( pid, year_won, as_star, as_director )  
VALUES('4', 2015, 'yes', 'yes');
```

```
INSERT INTO guild_winners( pid, year_won, as_star, as_director )  
VALUES('7', 2012, 'no', 'no');
```

```
--Movies--
```

```
INSERT INTO movies( mid, name, year_released )  
VALUES('M01', 'Goldfinger', 1964);
```

```
INSERT INTO movies( mid, name, year_released )  
VALUES('M02', 'Argo', 2012);
```

```
INSERT INTO movies( mid, name, year_released )  
VALUES('M03', 'Pirates of the Caribbean: The Curse of the Black Pearl', 2003);
```

--Actors_in_movies--

```
INSERT INTO actors_in_movies( pid, mid, mpaa_rating )  
VALUES('1', 'M01', 'PG');
```

```
INSERT INTO actors_in_movies( pid, mid, mpaa_rating )  
VALUES('2', 'M01', 'PG');
```

```
INSERT INTO actors_in_movies( pid, mid, mpaa_rating )  
VALUES('3', 'M02', 'R');
```

```
INSERT INTO actors_in_movies( pid, mid, mpaa_rating )  
VALUES('4', 'M03', 'PG-13');
```

```
INSERT INTO actors_in_movies( pid, mid, mpaa_rating )  
VALUES('5', 'M03', 'PG-13');
```

--Directors_in_movies--

```
INSERT INTO directors_in_movies( pid, mid, domestic_sales$ )  
VALUES('3', 'M02', 136025503);
```

```
INSERT INTO directors_in_movies( pid, mid, domestic_sales$ )  
VALUES('6', 'M01', 51081062);
```

```
INSERT INTO directors_in_movies( pid, mid, domestic_sales$ )  
VALUES('7', 'M03', 305411224);
```

-- check --

```
select *  
from people;
```

```
select *  
from actors;
```

```
select *  
from directors;
```

```
select *  
from guild_winners;
```

```
select *  
from movies;
```

```
select *  
from actors_in_movies;
```

```
select *  
from directors_in_movies;
```

--Working on query show all the directors with whom actor "Sean Connery" has worked: --

--1--

```
select p.pid  
from people p  
where first_name = 'Sean'  
and last_name = 'Connery';
```

--2--

```
select a.mid
```

```
from people p,  
actors_in_movies a  
where a.pid = p.pid  
and p.pid = '1';
```

--3--

```
select distinct d.pid  
from directors_in_movies d,  
      actors_in_movies a  
where a.mid = d.mid  
and a.mid = 'M01';
```

--4--

```
select p.first_name, p.last_name  
from people p,  
      directors_in_movies d  
where d.pid = p.pid  
and d.pid = '6';
```

--**Final Query** to show all the directors with whom actor “Sean Connery” has worked: --

```
select p.first_name, p.last_name  
from people p,  
      directors_in_movies d  
where d.pid = p.pid  
and d.pid in ( select distinct d.pid  
               from directors_in_movies d,
```



```

        actors_in_movies a
    where a.mid = d.mid
    and a.mid in ( select a.mid
                  from people p,
                  actors_in_movies a
                  where a.pid = p.pid
                  and p.pid in (select p.pid
                                from people p
                                where first_name = 'Sean'
                                and last_name = 'Connery'
                              )
                  )
    );

```

Functional Dependencies:

Table: People

(pid) \longrightarrow first_name, last_name, DOB_YYYY_MM_DD

Table: Actors

(aid) \longrightarrow hair_color, eye_color, height(inches), weight(lbs)

Table: Directors

(did) \longrightarrow film_school, spouse_first_name, spouse_last_name

Table: Guild_Winners

(pid) \longrightarrow year_won, as_star, as_director

Table: Movies

(mid) \longrightarrow name, year_released

Table: Actors_in_movies

(pid, mid) \longrightarrow mpaa_rating

Table: Directors_in_movies

(pid, mid) \longrightarrow domestic_sales\$

E / R Diagram:



