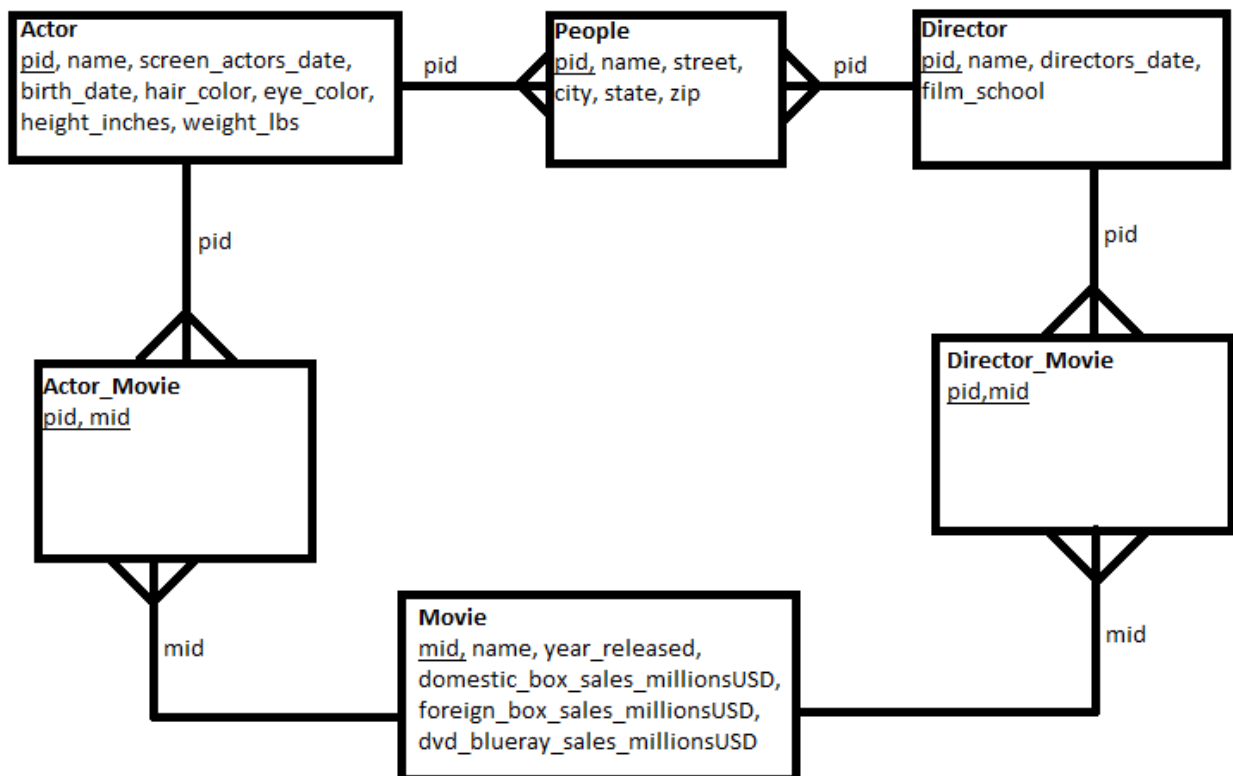Chris Ognibene

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CMPT 308 – 111

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Lab 8 – Normalization 2

Component I: E-R Diagram

SQL Create Statements (one for each table)

```
create table people(
  pid text not null unique primary key
, name text
, street text
, city text
```

```
, state text
, zip text
);



create table movie(

  mid text not null unique primary key
, name text
, year_released integer
, domestic_box_sales_millionsUSD text
, foreign_box_sales_millionsUSD text
, dvd_blueray_sales_millionsUSD text
);



create table actor(

  pid text not null unique references people(pid)
, name text
, screen_actors_guild date
, birth_date date
, hair_color text
, eye_color text
, height_inches text
, weight_lbs text
);



create table director(

  pid text not null unique references people(pid)
, name text
, directors_guild date
, film_school text
);



create table actor_movie(

  pid text not null references actor(pid)
, mid text not null references movie(mid)
);



create table movie_director(

   pid text not null references director(pid)
,  mid text not null references movie(mid)
);
```

SQL Insert Statements for test data

```
insert into people
values ('p1','Sean Connery','10 Hollywood Lane','Los
Angeles','CA','39820')
     ,  ('p2','Seth MacFarlane','345 Candyland Avenue','San
Francisco','CA','32455')
     ,  ('p3','Emma Watson','948 Oxford Road','New York','NY','43211')
     ,  ('p4','Nicholas Cage','32 Face Street','Miami','FL','39820')
     ,  ('p5','Gary Ross','48 Candy Lane','Nashville','TN','39384')
     ,  ('p6','Kenneth Branagh','965 Chocolate
Lane','Charleston','SC','12395')
     ,  ('p7','Joss Whedon','298 Twizzler Lane','Boise','ID','29573')
     ,  ('p8','James Cameron','20 Rock Street','Seattle','WA','18573');


insert into movie
values ('m1','Goldfinger',1964,1.7,3.4,5.4)
, ('m2','Ted',2012,1.2,3.2,3.2)
, ('m3','Harry Potter and the Sorceror''s Stone',2001,0.5,1.5,5.3)
, ('m4','Face/Off',1997,0.39,0.39,4.3);


insert into actor
values ('p1','Sean Connery','2-Jan-14','19-Apr-
60','Brown','Brown',64,154)
, ('p2','Seth MacFarlane','5-Feb-15','4-Jul-
40','Black','Black',60,150)
, ('p3','Emma Watson','23-Apr-16','23-Aug-84','Black','Blue',65,130)
, ('p4','Nicholas Cage','31-Aug-20','3-Mar-99','Blue','Green',66,140);


insert into director
values ('p5','Gary Ross','1-Apr-15','The National Film and Television
School')
, ('p6','Kenneth Branagh','4-May-50','Wesleyan University')
, ('p7','Joss Whedon','17-Mar-30','Columbia University School of the
Arts')
, ('p8','James Cameron','24-Dec-24','California Institute of the
Arts');


insert into actor_movie
values ('p1','m1')
     ,  ('p2','m2')
     ,  ('p3','m3')
     ,  ('p4','m4');
```

```
insert into movie_director
values ('p5','m1')
    , ('p6','m2')
    , ('p7','m3')
    , ('p8','m4');
```

Functional Dependencies

Actor: pid → name, screen_actors_date, birth_date, hair_color, eye_color, height_inches,

weight_lbs

Movie: mid → name, year_released, domestic_box_sales_millionsUSD,

foreign_box_sales_millionsUSD, dvd_blueray_sales_millionsUSD

Director: pid → name, directors_date, film_school

People: pid → name, street, city, state, zip

Actor_Movie and Movie_Director tables are association tables, with their two (and only two)

key attributes functionally determining nothing. They are foreign keys.

Actor_Movie: pid, mid → _____ (leave blank)

Movie_Director: pid, mid → _____ (leave blank)

Component 5: Return all the directors with whom actor Sean Connery has worked

```
select distinct d.name
from director d, people p, movie_director m_d, movie m, actor a,
actor_movie a_m
where a.name = 'Sean Connery'
  and a.pid = a_m.pid
  and d.pid = m_d.pid
  and m_d.mid = a_m.mid;
```