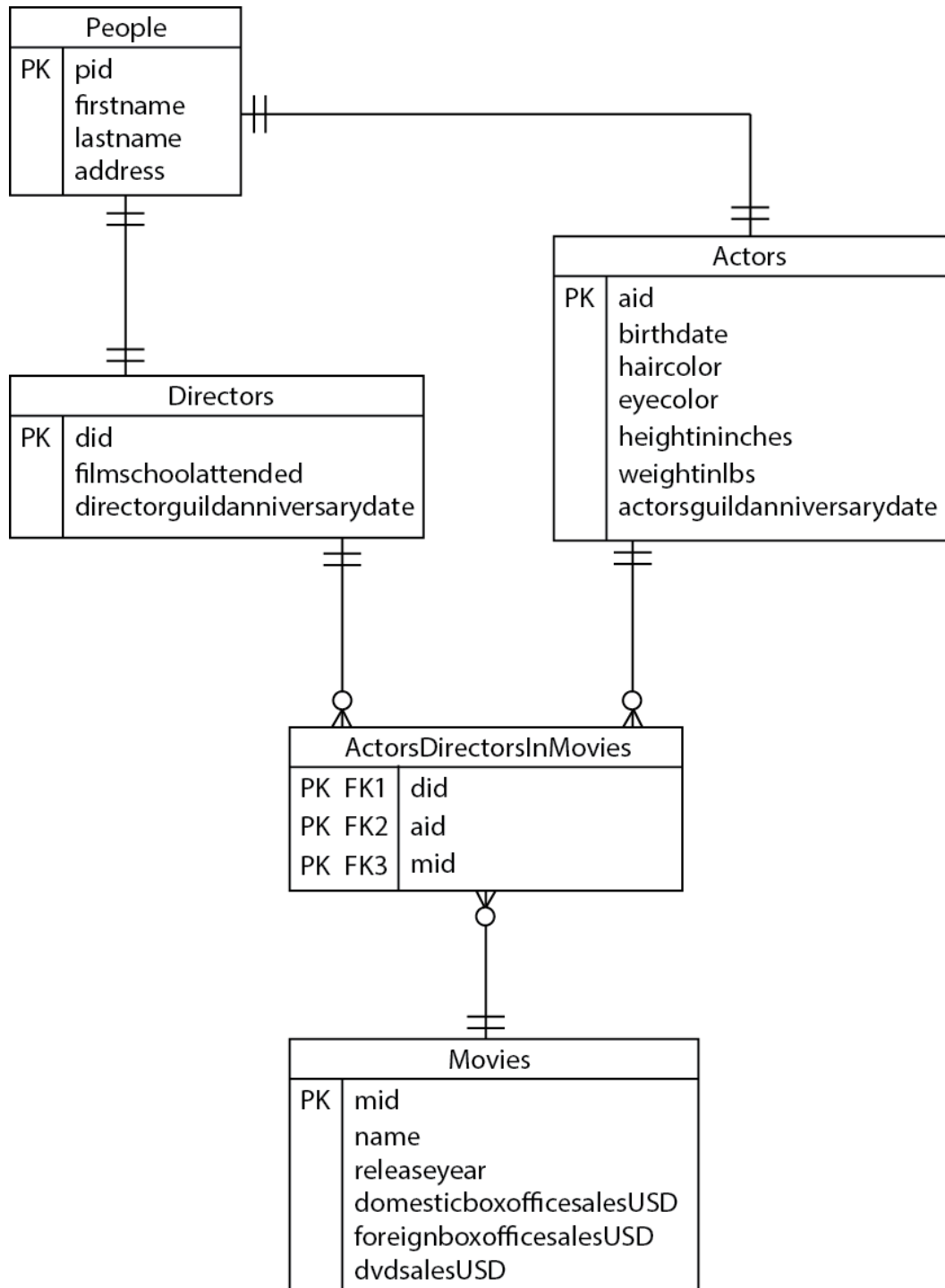


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Normalization 2

ER Diagram;



Create Statements:

```
create table People (  
    pid int not null,  
    firstname char(30) not null,  
    lastname char(30) not null,  
    address char(100) not null,  
    primary key (pid)  
);
```

```
create table Directors (  
    did int not null references People(pid),  
    filmschoolattended char(50) not null,  
    directorguildanniversarydate date not null,  
    primary key (did)  
);
```

```
create table Actors (  
    aid int not null references People(pid),  
    birthdate date not null,  
    haircolor char(20) not null,  
    eyecolor char(20) not null,  
    heightinches int not null,  
    weightinlbs int not null,  
    actorsguildanniversarydate date not null,  
    primary key (aid)  
);
```

```
create table Movies (  
    mid int not null,  
    name char(50) not null,  
    releaseyear int not null,  
    domesticboxofficesalesUSD int not null,  
    foreignboxofficesalesUSD int not null,  
    dvdsalesUSD int not null,  
    primary key (mid)  
);
```

```
create table ActorsDirectorsInMovies (  
    did int not null references Directors(did),
```

```
aid int not null references Actors(aid),
mid int not null references Movies(mid),
primary key (did,aid,mid)
);
```

Insert Data:

--PEOPLE--

```
insert into People (pid, firstName, lastName, address)
values (1, 'Sean', 'Connery', '8225 Delta Dr, Louisville, KY');
```

```
insert into People (pid, firstName, lastName, address)
values (2, 'Morgan ', 'Freeman', '315 Oakland Ave, Morganton, NC');
```

```
insert into People (pid, firstName, lastName, address)
values (3, 'James', 'Cameron', '110 Silktree Ct, Lake Dallas, TX');
```

```
insert into People (pid, firstName, lastName, address)
values (4, 'Squidward', 'Tortellini', '155 Beach St, Bikini Bottom, FL');
```

--DIRECTORS--

```
insert into Directors (did, filmschoolattended, directorguildanniversarydate)
values (3, 'New York University', '5/30/2011');
```

```
insert into Directors (did, filmschoolattended, directorguildanniversarydate)
values (4, 'Columbia University', '11/24/2002');
```

--ACTORS--

```
insert into Actors (aid, birthdate, haircolor, eyecolor, heightinches, weightinlbs,
actorsguildanniversarydate)
values (1, '8/25/1930', 'brown', 'black', 74, 180, '5/11/2007');
```

```
insert into Actors (aid, birthdate, haircolor, eyecolor, heightinches, weightinlbs,
actorsguildanniversarydate)
values (2, '5/1/1937', 'brown', 'brown', 70, 175, '11/25/2005');
```

--MOVIES--

```
insert into Movies (mid, name, releaseyear, domesticboxofficesalesUSD,
foreignboxofficesalesUSD, dvdsalesUSD)
values (1, 'Thunderball ', 1965, 26000000, 15000000, 14000000);
```

```
insert into Movies (mid, name, releaseyear, domesticboxofficesalesUSD,
foreignboxofficesalesUSD, dvdsalesUSD)
```

```
values (2, 'Evan Almighty ', 2007, 21000000, 18000000, 10000000);
```

```
--ACTORSDIRECTORSINMOVIES--
```

```
insert into ActorsAndDirectorsInMovies (did, aid, mid)  
values (4, 1, 1);
```

```
insert into ActorsAndDirectorsInMovies (did, aid, mid)  
values (4, 2, 1);
```

```
insert into ActorsAndDirectorsInMovies (did, aid, mid)  
values (3, 1, 2);
```

```
insert into ActorsAndDirectorsInMovies (did, aid, mid)  
values (3, 2, 2);
```

Functional Dependencies:

People: pid → firstname, lastname, address

Directors: did → filmschoolattended, directorsguildanniversarydate

Actors: aid → birthdate, haircolor, eyecolor, heightinches, weightinlbs,
actorsguildanniversarydate

Movies: mid → name, releaseyear, domesticboxofficesalesUSD, foreignboxofficesalesUSD,
dvdsalesUSD

Query:

```
SELECT p2.pid, p2.firstname, p2.lastname, d.filmschoolattended,  
       d.directorsguildanniversarydate  
FROM PEOPLE p1, people p2, actors a, directors d, actorsdirectorsinmovies adm  
WHERE p1.firstname = 'sean' AND  
       p1.lastname = 'connery' AND  
       p1.pid = a.aid AND  
       a.aid = adm.aid AND  
       p2.pid = d.did AND  
       d.did = adm.did;
```