



Functional Dependencies:

actors

Aid -> all attributes

movies

Mid -> all attributes

directors

Did -> all attributes

casting

cid -> all attributes

mid -> rating

movieDirectorConnection

mdid -> all attributes

did -> mid

SQL CREATE, INSERT, and QUERY :

--Clear--

```
DROP TABLE IF EXISTS casting;  
DROP TABLE IF EXISTS actors;  
DROP TABLE IF EXISTS movieDirectorConnection;  
DROP TABLE IF EXISTS movies;  
DROP TABLE IF EXISTS directors;
```

-- Actors --

```
CREATE TABLE actors (  
    aid      char(3) not null,  
    fname    text,  
    lname    text,  
    address  text,  
    birthDate date,  
    hairColor text,  
    eyeColor text,  
    HeightInches integer,  
    weightLbs integer,  
    sagAnniversary date,  
    primary key(aid)  
);
```

-- Directors --

```
CREATE TABLE directors (  
    did      char(3) not null,  
    fname    text,  
    lname    text,  
    address  text,  
    filmSchoolAttended text,  
    dgAnniversary date,  
    primary key(did)  
);
```

-- Movies --

```
CREATE TABLE movies (  
    mid      char(3) not null,  
    title    text,  
    yearReleased text,  
    domesticBoxOfficeSales numeric(15,2),  
    foreignBoxOfficeSales numeric(15,2),  
    dvdAndBluRaySales numeric(15,2),  
    primary key(mid)  
);
```

-- Casting --

```
CREATE TABLE casting (  
  cid    char(3) not null,  
  aid    char(3) not null references actors(aid),  
  mid    char(3) not null references movies(mid),  
  rating integer,  
  CONSTRAINT rating CHECK (rating BETWEEN 1 AND 10),  
  primary key(cid)  
);
```

--movieDirectorConnection--

```
CREATE TABLE movieDirectorConnection (  
  mdid   char(6) not null,  
  did    char(3) not null references directors(did),  
  mid    char(3) not null references movies(mid),  
  primary key(mdid)  
);
```

-- actors --

```
INSERT INTO actors( aid, fname, lname, address, birthDate, hairColor, eyeColor,  
heightInches, weightLbs,sagAnniversary)  
  VALUES('a01', 'Sean', 'Connery', '32 bond lane',  
'19300825','white','brown',72,207,'19950215');
```

```
INSERT INTO actors( aid, fname, lname, address, birthDate, hairColor, eyeColor,  
heightInches, weightLbs,sagAnniversary)  
  VALUES('a02', 'Jennifer', 'Aniston', '111 cary drive', '19690211','dirty  
blonde','brown',65,120,'19991102');
```

```
INSERT INTO actors( aid, fname, lname, address, birthDate, hairColor, eyeColor,  
heightInches, weightLbs,sagAnniversary)  
  VALUES('a03', 'Andrew', 'Lohr', '3399 North Road',  
'19911118','brown','blue',70,225,'20140401');
```

```
INSERT INTO actors( aid, fname, lname, address, birthDate, hairColor, eyeColor,  
heightInches, weightLbs,sagAnniversary)  
  VALUES('a04', 'Chris', 'Pratt', '26 opera road', '19790621','dirty  
blonde','brown',73,200,'20140126');
```

--directors--

```
INSERT INTO directors( did, fname, lname, address, filmSchoolAttended,dgAnniversary)  
  VALUES('d01', 'John', 'McTiernan', '44 red circle', 'Center for kids who cant read  
good','19920317');
```

```
INSERT INTO directors( did, fname, lname, address, filmSchoolAttended,dgAnniversary)
```

```
VALUES('d02', 'Lewis', 'Gilbert', '007 gun court', 'You Only Direct Twice', '19670611');
```

```
INSERT INTO directors( did, fname, lname, address, filmSchoolAttended, dgAnniversary)  
VALUES('d03', 'Chris', 'Buck', '344 froze road', 'Let It Go Institute', '20140219');
```

```
INSERT INTO directors( did, fname, lname, address, filmSchoolAttended, dgAnniversary)  
VALUES('d04', 'Jenn', 'Lee', '500 castle lane', 'Love is an open door Institute', '20140219');
```

```
INSERT INTO directors( did, fname, lname, address, filmSchoolAttended, dgAnniversary)  
VALUES('d05', 'Spike', 'Jonze', '15 op road', 'Operating Systems School', '20130522');
```

--Movies--

```
INSERT INTO movies( mid, title, yearReleased,  
domesticBoxOfficeSales, foreignBoxOfficeSales, dvdAndBluRaySales)  
VALUES('m01', 'Frozen', '2014', 398000000.00, 674000000.00, 125000000.00);
```

```
INSERT INTO movies( mid, title, yearReleased,  
domesticBoxOfficeSales, foreignBoxOfficeSales, dvdAndBluRaySales)  
VALUES('m02', 'You Only Live Twice', '1967', 43084787.00, 68500000.00, 12000000.00);
```

```
INSERT INTO movies( mid, title, yearReleased,  
domesticBoxOfficeSales, foreignBoxOfficeSales, dvdAndBluRaySales)  
VALUES('m03', 'Her', '2013', 25481216.00, 16779074.00, 8000000.00);
```

```
INSERT INTO movies( mid, title, yearReleased,  
domesticBoxOfficeSales, foreignBoxOfficeSales, dvdAndBluRaySales)  
VALUES('m04', 'The Hunt for Red October', '1990', 120709868.00,  
78500000.00, 25000000.00);
```

```
INSERT INTO movies( mid, title, yearReleased,  
domesticBoxOfficeSales, foreignBoxOfficeSales, dvdAndBluRaySales)  
VALUES('m05', 'Were The Millers', '2013', 26419396.00, 35000000.00, 15000000.00);
```

--Casting--

```
INSERT INTO casting( cid, aid, mid, rating)  
VALUES('c01', 'a01', 'm02', 6);
```

```
INSERT INTO casting( cid, aid, mid, rating)  
VALUES('c02', 'a01', 'm04', 8);
```

```
INSERT INTO casting( cid, aid, mid, rating)  
VALUES('c03', 'a02', 'm05', 7);
```

```
INSERT INTO casting( cid, aid, mid, rating)  
VALUES('c04', 'a03', 'm01', 10);
```

```
INSERT INTO casting( cid, aid, mid, rating)  
VALUES('c05', 'a04', 'm03', 7);
```

```
--MovieDirectorConnection--  
INSERT INTO MovieDirectorConnection( mdid, did, mid)  
VALUES('mdid01', 'd01', 'm04');
```

```
INSERT INTO MovieDirectorConnection( mdid, did, mid)  
VALUES('mdid02', 'd02', 'm02');
```

```
INSERT INTO MovieDirectorConnection( mdid, did, mid)  
VALUES('mdid03', 'd03', 'm01');
```

```
INSERT INTO MovieDirectorConnection( mdid, did, mid)  
VALUES('mdid04', 'd04', 'm01');
```

```
INSERT INTO MovieDirectorConnection( mdid, did, mid)  
VALUES('mdid05', 'd05', 'm03');
```

```
/*Query to find all directors Sean Connery worked with  
Finds Seans aid, the searches casting for that aid to  
get all movies Sean was in. Then it searches MovieDirectorConnection  
to find which directors directed those movies-only gets the id (did)  
so one final search to get the name of the directors in the directors  
table using the did, too much?  
*/
```

```
select fname,lname  
from directors  
where did  
in(  
select did  
from MovieDirectorConnection  
where mid  
in(  
select mid  
from casting  
where aid  
in(  
select aid  
from actors  
where fname = 'Sean' and lname = 'Connery'))))
```