

# **Functional Dependencies**

People Table: Pid → Name, StreetNumber, StreetName, City, State, ScreenGuildDate

Actors Table: Aid → Pid, BirthDate, HairColor, EyeColor, HeightInches,

WeightPounds

Directors Table: Did → Pid, filmSchool

Movie Table: Mid → Name, YearReleased, BoxOfficeSales, ForeignSales, DVDSales

Acted Table: composite key: Aid, Mid Directed Table: composite key: Did, Mid

```
CREATE TABLE People(
      Pid char(3) NOT NULL,
      Name text,
      StreetNumber integer,
      StreetName text,
      City text,
      State text,
      ScreenGuildDate date,
      PRIMARY KEY(Pid) );
CREATE TABLE Actors (
      Aid char(3) NOT NULL,
      Pid char(3) NOT NULL,
      BirthDate date,
      HairColor text,
      EyeColor text,
      HeightInches text,
      WeightPounds text,
PRIMARY KEY(Aid));
CREATE TABLE Directors (
      Did char(3) NOT NULL,
      Pid char(3) NOT NULL,
filmSchool text, PRIMARY KEY(Did));
CREATE TABLE Movies (
      Mid char(3) NOT NULL,
      Name text.
      YearReleased date,
      BoxOfficeSales integer,
      ForeignSales integer,
      DVDSales integer,
PRIMARY KEY(Mid));
CREATE TABLE Acted (
      Aid char(3) NOT NULL,
      Mid char(3) NOT NULL,
PRIMARY KEY(Aid, Mid));
CREATE TABLE Directed (
      Did char(3) NOT NULL,
      Mid char(3) NOT NULL,
PRIMARY KEY(Did, Mid) );
```

## **INSERT INTO People**

(Pid, Name, StreetNumber, StreetName, City, State, ScreenGuildDate)

VALUES ('P01', 'Kimberly Tobias', '56', 'Queensbridge Way', 'San Jose', 'CA', '6/3/05');

## **INSERT INTO People**

(Pid, Name, StreetNumber, StreetName, City, State, ScreenGuildDate)

VALUES ('P02', 'Sean Connery', '1223', 'ImAStar Way', 'Beverley Hills', 'CA', '6/19/55');

# INSERT INTO People

(Pid, Name, StreetNumber, StreetName, City, State, ScreenGuildDate)

VALUES ('P03', 'Caitlin McNally', '6599', 'Little Falls Drive', 'San Diego', 'CA', '5/15/93');

INSERT INTO Actors (Aid, Pid, BirthDate, HairColor, EyeColor, HeightInches, WeightPounds)

VALUES ('A01', 'P01', '8/22/79', 'Brown', 'Brown', '67', '140');

INSERT INTO Actors (Aid, Pid, BirthDate, HairColor, EyeColor, HeightInches, WeightPounds)

VALUES ('A02', 'P02', '10/22/15', 'Blonde', 'Blue', '76', '215');

#### **INSERT INTO Actors**

(Aid, Pid, BirthDate, HairColor, EyeColor, HeightInches, WeightPounds) VALUES ('A03', 'P03', '8/12/89', 'Black', 'Hazel', '66', '130');

## **INSERT INTO Directors**

(Did, Pid, filmSchool)

VALUES ('D01', 'P01', 'Chapman');

## **INSERT INTO Directors**

(Did, Pid, filmSchool)

VALUES ('D02', 'P03', 'NYFilmSchool');

#### **INSERT INTO Movies**

(Mid, Name, YearReleased, BoxOfficeSales, ForeignSales, DVDSales)

VALUES ('M01', 'First 007', '9/18/1986', '1600000', '500000', '100000');

#### **INSERT INTO Movies**

(Mid, Name, YearReleased, BoxOfficeSales, ForeignSales, DVDSales)

VALUES ('M02', 'Love Takes a Toll', '8/30/1956', '500000', '60000', '0');

```
INSERT INTO Movies
```

(Mid, Name, YearReleased, BoxOfficeSales, ForeignSales, DVDSales) VALUES ('M03', 'How It Last', '5/15/2015', '5600000', '3500000', '100');

#### **INSERT INTO Movies**

(Mid, Name, YearReleased, BoxOfficeSales, ForeignSales, DVDSales) VALUES ('M04', 'Come On Lets Go', '6/3/1996', '4500000', '900000', '450000');

## **INSERT INTO Movies**

(Mid, Name, YearReleased, BoxOfficeSales, ForeignSales, DVDSales)
VALUES ('M05', 'This Gets Repetitive', '6/15/2006', '5555500', '500000', '9500');

## **INSERT INTO Movies**

(Mid, Name, YearReleased, BoxOfficeSales, ForeignSales, DVDSales) VALUES ('M06', 'Quantum of No Solace', '9/11/1999', '2000000', '990000', '330000');

**INSERT INTO Acted** 

(Aid, Mid)

VALUES ('A01', 'M07');

## **INSERT INTO Acted**

(Aid, Mid) VALUES ('A02', 'M05'); INSERT INTO Acted (Aid, Mid) VALUES ('A02', 'M03');

**INSERT INTO Acted** 

(Aid, Mid)

VALUES ('A03', 'M06');

INSERT INTO Acted

(Aid, Mid)

VALUES ('A02', 'M04');

**INSERT INTO Acted** 

(Aid, Mid)

VALUES ('A01', 'M04');

**INSERT INTO Acted** 

(Aid, Mid)

VALUES ('A03', 'M02');

**INSERT INTO Acted** 

(Aid, Mid)

VALUES ('A01', 'M01');

```
INSERT INTO Acted
(Aid, Mid)
VALUES ('A03', 'M01');
Insert INTO Directed
(Did, Mid)
VALUES ('D01', 'M05');
Insert INTO Directed
(Did, Mid)
VALUES ('D02', 'M03');
Insert INTO Directed
(Did, Mid)
VALUES ('D01', 'M04');
5. write a SQL query to return all directors with whom have worked with "Sean
Connery"
SELECT *
FROM People p
WHERE Pid IN
      (Select Pid
      FROM Directors d
      Where d.Did IN
             (SELECT Did FROM Directed d
             WHERE d.Mid IN
                   (SELECT m.Mid FROM Movies m
                   WHERE m.Mid IN
                          (SELECT a.Mid FROM Acted a
                          WHERE a.Aid IN
                                (SELECT a.Aid From Actors act
                                WHERE act.Aid = a.Aid)))));
```