

Directors					
did	firstName	lastName	address	filmSchool	DGAanniversary
d01	Steven	Spielberg	54 Rich Road	FTMA	08-01-1990
d02	J.J.	Abrams	192 Trecky Road	UCLA	11-09-1999
d03	Gore	Verbinski	1790 Pirate Ave	UCLA	09-12-2001
d04	Louis	Leterrier	1950 Sunset Boulevard	LA Film School	12-19-2006
d05	Lewis	Gilbert	78 Vista Lane	USC	07-18-1970
d06	Guy	Hamilton	899 Gold Street	LA Film School	10-12-1977

Movies		
mid	title	yearReleased
m01	Schindler's List	1993
m02	Clash of the Titans	2010
m03	Star Trek	2009
m04	Star Trek: Into Darkness	2013
m05	Pirates of the Caribbean: Curse of the Black Pearl	2003
m06	Pirates of the Caribbean: Dead Man's Chest	2006
m07	You Only Live Twice	1967
m08	Diamonds Are Forever	1971

Productions		
mid	aid	did
m01	a01	d01
m02	a01	d04
m03	a02	d02
m04	a02	d02
m05	a03	d03
m06	a03	d03
m07	a04	d05
m08	a04	d06

Sales			
mid	domesticUSD	foreignUSD	dvdUSD
m01	250,000,000	100,000,000	900,000
m02	200,000,000	200,000,000	1,500,000
m03	200,000,000	100,000,000	700,000
m04	250,000,000	200,000,000	750,000
m05	400,000,000	250,000,000	2,000,000
m06	600,000,000	300,000,000	3,000,000
m07	90,000,000	10,000,000	600,000
m08	80,000,000	15,000,000	750,000

Actors					
aid	firstName	lastName	address	birthDate	SAGanniversary
a01	Liam	Neeson	142 Fake Ave	06-07-1952	07-21-2000
a02	Chris	Pine	13 Kirk Lane	08-26-1980	11-02-2008
a03	Johnny	Depp	199 Vine Road	06-09-1963	12-13-1994
a04	Sean	Connery	007 Bond Road	08-25-1930	07-22-1966

Features				
aid	hairColor	eyeColor	heightInch	weightLb
a01	Brown	Blue	76	187
a02	Brown	Brown	72	180
a03	Brown	Brown	70	181
a04	Grey	Green	74	176

2) SQL create statements:

```
-- Actors --
create table Actors (
  aid          char(3) not null,
  firstName    text,
  lastName     text,
  address      text,
  birthDate    date,
  SAGanniversary date,
  primary key(aid)
);

-- Directors --
create table Directors (
  did          char(3) not null,
  firstName    text,
  lastName     text,
  address      text,
  filmSchool   text,
  DGAanniversary date,
  primary key(did)
);

-- Productions --
create table Productions (
  mid char(3) not null,
  aid  char(3) not null,
  did  char(3) not null,
  primary key(mid,aid,did)
);

-- Features --
create table Features (
  aid          char(3) not null,
  hairColor    text,
  eyeColor     text,
  heightInch   int,
  weightLb     int,
  primary key(aid)
);

-- Movies --
create table Movies (
  mid          char(3) not null,
  title        text,
  yearReleased int,
  primary key(mid)
);

-- Sales --
create table Sales (
  mid          char(3) not null,
  domesticUSD  numeric(12,2),
  foreignUSD   numeric(12,2),
  dvdUSD       numeric(12,2),
  primary key(mid)
);
```

3) SQL insert statements:

```
-- Actors --
insert into Actors(aid, firstName, lastName, address, birthDate, SAGanniversary)
values('a01', 'Liam', 'Neeson', '142 Fake Ave', '1952-06-07', '2000-07-21');

insert into Actors(aid, firstName, lastName, address, birthDate, SAGanniversary)
values('a02', 'Chris', 'Pine', '13 Kirk Lane', '1980-08-26', '2008-11-02');

insert into Actors(aid, firstName, lastName, address, birthDate, SAGanniversary)
values('a03', 'Johnny', 'Depp', '199 Vine Road', '1963-06-09', '1994-12-13');

insert into Actors(aid, firstName, lastName, address, birthDate, SAGanniversary)
values('a04', 'Sean', 'Connery', '007 Bond Road', '1930-08-25', '1966-07-22');
```

```

-- Features --
insert into Features(aid, hairColor, eyeColor, heightInch, weightLb)
    values('a01', 'brown', 'blue', 76, 187);

insert into Features(aid, hairColor, eyeColor, heightInch, weightLb)
    values('a02', 'brown', 'brown', 72, 180);

insert into Features(aid, hairColor, eyeColor, heightInch, weightLb)
    values('a03', 'brown', 'brown', 70, 181);

insert into Features(aid, hairColor, eyeColor, heightInch, weightLb)
    values('a04', 'grey', 'green', 74, 176);


-- Directors --
insert into Directors(did, firstName, lastName, address, filmSchool, DGAanniversary)
    values('d01', 'Steven', 'Spielberg', '54 Rich Road', 'FTMA', '1990-08-01');

insert into Directors(did, firstName, lastName, address, filmSchool, DGAanniversary)
    values('d02', 'J.J.', 'Abrams', '192 Trekky Road', 'UCLA', '1999-11-09');

insert into Directors(did, firstName, lastName, address, filmSchool, DGAanniversary)
    values('d03', 'Gore', 'Verbinski', '1790 Pirate Ave', 'UCLA', '2001-12-09');

insert into Directors(did, firstName, lastName, address, filmSchool, DGAanniversary)
    values('d04', 'Louis', 'Leterrier', '1950 Sunset Boulevard', 'LA Film School', '2006-12-19');

insert into Directors(did, firstName, lastName, address, filmSchool, DGAanniversary)
    values('d05', 'Lewis', 'Gilbert', '78 Vista Lane', 'USC', '1970-07-18');

insert into Directors(did, firstName, lastName, address, filmSchool, DGAanniversary)
    values('d06', 'Guy', 'Hamilton', '899 Gold Street', 'LA Film School', '1977-10-12');


-- Movies --
insert into Movies(mid, title, yearReleased)
    values('m01', 'Schindler's List', 1993);

insert into Movies(mid, title, yearReleased)
    values('m02', 'Clash of the Titans', 2010);

insert into Movies(mid, title, yearReleased)
    values('m03', 'Star Trek', 2009);

insert into Movies(mid, title, yearReleased)
    values('m04', 'Stark Trek: Into Darkness', 2013);

insert into Movies(mid, title, yearReleased)
    values('m05', 'Pirates of the Caribbean: Curse of the Black Pearl', 2003);

insert into Movies(mid, title, yearReleased)
    values('m06', 'Pirates of the Caribbean: Dead Man's Chest', 2006);

insert into Movies(mid, title, yearReleased)
    values('m07', 'You Only Live Twice', 1967);

insert into Movies(mid, title, yearReleased)
    values('m08', 'Diamonds Are Forever', 1971);

```

```

-- Sales --
insert into Sales(mid, domesticUSD, foreignUSD, dvdUSD)
  values('m01', 250000000, 100000000, 900000);

insert into Sales(mid, domesticUSD, foreignUSD, dvdUSD)
  values('m02', 200000000, 200000000, 1500000);

insert into Sales(mid, domesticUSD, foreignUSD, dvdUSD)
  values('m03', 200000000, 100000000, 700000);

insert into Sales(mid, domesticUSD, foreignUSD, dvdUSD)
  values('m04', 250000000, 200000000, 750000);

insert into Sales(mid, domesticUSD, foreignUSD, dvdUSD)
  values('m05', 400000000, 250000000, 2000000);

insert into Sales(mid, domesticUSD, foreignUSD, dvdUSD)
  values('m06', 600000000, 300000000, 3000000);

insert into Sales(mid, domesticUSD, foreignUSD, dvdUSD)
  values('m07', 90000000, 10000000, 600000);

insert into Sales(mid, domesticUSD, foreignUSD, dvdUSD)
  values('m08', 80000000, 15000000, 750000);

-- Productions --
insert into Productions(mid, aid, did)
  values('m01', 'a01', 'd01');

insert into Productions(mid, aid, did)
  values('m02', 'a01', 'd04');

insert into Productions(mid, aid, did)
  values('m03', 'a02', 'd02');

insert into Productions(mid, aid, did)
  values('m04', 'a02', 'd02');

insert into Productions(mid, aid, did)
  values('m05', 'a03', 'd03');

insert into Productions(mid, aid, did)
  values('m06', 'a03', 'd03');

insert into Productions(mid, aid, did)
  values('m07', 'a04', 'd05');

insert into Productions(mid, aid, did)
  values('m08', 'a04', 'd06');

```

4) Functional dependencies:

Actors: aid \rightarrow firstName, lastName, address, birthDate, SAGanniversary

Features: aid \rightarrow hairColor, eyeColor, heightInch, weightLb

Directors: did \rightarrow firstName, lastName, address, filmSchool, DGAanniversary

Movies: mid \rightarrow title, yearReleased

Sales: mid \rightarrow domesticUSD, foreignUSD, dvdUSD

Productions: mid, aid, did \rightarrow

5) SQL query that returns all directors with whom actor “Sean Connery” has worked:

```
select d.firstName, d.lastName
from directors d,
     actors a,
     productions p
where a.aid = p.aid
     and d.did = p.did
     and a.firstName = 'Sean'
     and a.lastName = 'Connery'
```