Tom Morse

Normalization 2

PART 1 at end

--PART 2

DROP TABLE IF EXISTS actorspersonalinfo;

CREATE TABLE actorspersonalinfo (

  apid CHAR (5) NOT NULL,

  haircolor CHAR (20) NOT NULL,

  eyecolor CHAR (20) NOT NULL,

  height CHAR (10) NOT NULL,

  weight CHAR (10) NOT NULL,

  PRIMARY KEY (apid));


DROP TABLE IF EXISTS actorbios;

create table actorbios (

  abid CHAR (5) NOT NULL,

  actorname CHAR (20) NOT NULL,

  address CHAR (50) NOT NULL,

  birth_date CHAR (30) NOT NULL,

  aguild_date CHAR (30) NOT NULL,

  PRIMARY KEY (abid));

```sql
DROP TABLE IF EXISTS actors;

create table actors (

  aid CHAR (5) NOT NULL,

  PRIMARY KEY (aid),

  apid CHAR (5) REFERENCES actorspersonalinfo(apid),

  abid CHAR (5) REFERENCES actorbios(abid));


DROP TABLE IF EXISTS directorbios;

create table directorbios (

  dbid CHAR (5) NOT NULL,

  directorname CHAR (20) NOT NULL,

  address CHAR (50) NOT NULL,

  PRIMARY KEY (dbid));


DROP TABLE IF EXISTS directorskills;

create table directorskills (

  dsid CHAR (5) NOT NULL,

  filmschoolname CHAR (30) NOT NULL,

  dguild_date CHAR (30) NOT NULL,

  PRIMARY KEY (dsid));
```

```sql
DROP TABLE IF EXISTS directors;

create table directors (

  did CHAR (5) NOT NULL,

  PRIMARY KEY (did),

  dbid CHAR (5) REFERENCES directorbios(dbid),

  dsid CHAR (5) REFERENCES directorskills(dsid));


DROP TABLE IF EXISTS moviedata;

create table moviedata (

  mdid CHAR (5) NOT NULL,

  moviename CHAR (30) NOT NULL,

  release_date INTEGER NOT NULL,

  PRIMARY KEY (mdid));


DROP TABLE IF EXISTS moviesales;

create table moviesales (

  msid CHAR (5) NOT NULL,

  bluraysales CHAR (30) NOT NULL,

  dvdsales CHAR (30) NOT NULL,

  forgeinbo CHAR (30) NOT NULL,

  demesticbo CHAR (30) NOT NULL,

  PRIMARY KEY (msid));
```

```sql
DROP TABLE IF EXISTS movies;

create table movies (

  mid CHAR (5) NOT NULL,

  PRIMARY KEY (mid),

  mdid CHAR (5) REFERENCES moviedata(mdid),

  msid CHAR (5) REFERENCES moviesales(msid));


DROP TABLE IF EXISTS inmovies;

create table inmovies (

  mid CHAR (5) REFERENCES movies(mid),

  did CHAR (5) REFERENCES directors(did),

  aid CHAR (5) REFERENCES actors(aid),

  PRIMARY KEY (mid, did, aid));


--PART 3
insert into actorspersonalinfo (apid, haircolor, eyecolor, height, weight)

values('a01', 'black', 'brown', '68', '184'),

    ('a02', 'black', 'brown', '75.5', '192'),

    ('a03', 'White', 'green', '74.5', '168');


insert into actorbios (abid, actorname, address, birth_date, aguild_date)

values('a001', 'Mark wahlberg', 'Dorchester, Boston, Massachusetts, USA', '1971:06:05 00:00:00',
'1991:10:24 00:00:00'),

    ('a002', 'Ben Affleck', 'Berkeley, CA', '1972:08:15 00:00:00', '1984:07:23 00:00:00'),

    ('a003', 'Sean Connery', 'Edinburgh, Scotland, UK ', '1930:08:25 00:00:00', '1957:03:18 00:00:00');
```

```sql
insert into actors (aid, apid, abid)
values('a1', 'a01', 'a001'),
    ('a2', 'a02', 'a002'),
    ('a3', 'a03', 'a003');


insert into directorbios (dbid, directorname, address)
values('d01', 'Antoine Fuqua', '304 Park Avenue South New York NY 10010'),
    ('d02', 'Ben Affleck', 'Berkeley, CA'),
    ('d03', 'Michael Bay', 'Los Angeles, California, USA');


insert into directorskills (dsid, filmschoolname, dguild_date)
values('d001', 'West Virginia University', '1997:08:23 00:00:00'),
    ('d002', 'New York School of acting', '1995:11:12 00:00:00'),
    ('d003', 'Wesleyan University', '1995:05:14 00:00:00');


insert into directors (did, dbid, dsid)
values('d1', 'd01', 'd001'),
    ('d2', 'd02', 'd003'),
    ('d3', 'd03', 'd003');


insert into moviedata (mdid, moviename, release_date)
values('m01', 'Shooter', '2007'),
    ('m02', 'The Town', '2010'),
    ('m03', 'The Rock', '1996');
```

insert into moviesales (msid, bluraysales, dvdsales, forgeinbo, demesticbo)

values('m001', '3,494,324', '5,284,842', '10,167,725', '44,975,183'),

('m002', '4,635,937', '8,732,658', '13,983,092', '51,734,283'),

('m003', '6,745,194', '945,834', '9,743,372', '36,843,932');


insert into movies (mid, mdid, msid)

values('m1', 'm01', 'm001'),

('m2', 'm02', 'm002'),

('m3', 'm03', 'm003');


insert into inmovies (mid, did, aid)

values('m1', 'd1', 'a1'),

('m2', 'd2', 'a2'),

('m3', 'd3', 'a3');


--PART 4

| | | |
|---|---|---|
| Movie_name and releaseyear_date | DEPENDs | mdid |
| Blu-ray, dvd, foreign and domestic | DEPENDs | msid |
| Mdid and msid | DEPENDs | mid |
| Actor_name, address, birth date and guild | DEPENDs | abid |
| Hair, eye, height and weight | DEPENDs | Apid |
| Abid and apid | DEPENDs | Aid |
| Director_name and address | DEPENDs | Dbid |
| Guild and film school | DEPENDs | Dsid |
| Dbid and dsid | DEPENDs | Did |
| Mid, aid and did | DEPENDs | Mid, aid, and did |

--PART 5

```sql
SELECT DISTINCT
  c.directorname
FROM
  actors a, actorbios b, directorbios c, directors d, inmovies m
WHERE
  c.dbid = d.dbid
  AND
  d.did = m.did
  AND
  m.aid = a.aid
  AND
  a.abid = b.abid
  AND
  b.actorname = 'Sean Connery'
```

--PART 1

**Movies**
- 🔑 mid_id  INT  PK
- 🔑 msid_id  INT  FK
- 🔑 mdid_id  INT  FK

**Movie Sales**
- 🔑 msid_id  INT  PK

**Indexes**
- blu-ray sales
- dvd sales
- forgienboxofficeUSD
- demesticboxofficeUSD

**Movie Data**
- 🔑 mdid_id  INT  PK

**Indexes**
- Movie_name
- releaseyear_date

**In movies**
- 🔑 mid_id  INT  PK
- 🔑 aid_id  INT  PK
- 🔑 did_id  INT  PK

**Actors**
- 🔑 aid_id  INT  PK
- 🔑 abid_id  INT  FK
- 🔑 apid_id  INT  FK

**Directors**
- 🔑 did_id  INT  PK
- 🔑 dbid_id  INT  FK
- 🔑 dsid_id  INT  FK

**Actor Bio**
- abid  PK

**Indexes**
- Actor_name
- Address
- Birth date
- guildanniversary_date

**Actor Personal Info**
- apid  PK

**Indexes**
- Hair color
- Eye color
- HeightIN
- Weightlbs

**Director Bio**
- dbid  PK

**Indexes**
- Director_name
- Address

**Skills**
- 🔑 dsid_id  INT  PK

**Indexes**
- guildanniversary_date
- filmschool_name