

DATABASE imdb_small

Relational model:

ACTORS (id, first_name, last_name, gender)

DIRECTORS (id, first_name, last_name)

MOVIES (id, name, year, rank)

MOVIES_DIRECTORS (director_id*, movie_id*)

MOVIES_GENRES (movie_id*, genre)

ROLES (actor_id*, movie_id*, role)

id	name	year	rank
112290	Fight Club	1999	8.5
209658	Meet the Parents	2000	7
210511	Memento	2000	8.7
...			

movies

actor_id	movie_id	role
433259	313398	Capt. James T. Kirk
433259	407323	Sgt. T.J. Hooker
797926	342189	Herself
...		

roles

id	first_name	last_name	gender
433259	William	Shatner	M
797926	Britney	Spears	F
831289	Sigourney	Weaver	F
...			

actors

director_id	movie_id
24758	112290
66965	209658
72723	313398
...	

movies_directors

id	first_name	last_name
24758	David	Fincher
66965	Jay	Roach
72723	William	Shatner
...		

directors

movie_id	genre
209658	Comedy
313398	Action
313398	Sci-Fi
...	

movies_genres

Link to download the database [here](#).

NOTES:

- I would create a table for genres...
- The exercises are not sorted by order of difficulty...

1.- Data of all the actors with the surname 'Willis'.

id	first_name	last_name	gender
512541	Bruce	Willis	M
512626	Phillip L.	Willis	M
836217	Rosemary	Willis	F
836222	Susan	Willis	F

4 rows in set (0.000 sec)

2. Code and title of the movies that in its title there are some of the following words: "kill", "pirates", "war", "man". Order the result by movie title.

id	name
147603	Hollow Man
176711	Kill Bill: Vol. 1
176712	Kill Bill: Vol. 2
256630	Pirates of the Caribbean
313459	Star Wars

5 rows in set (0.001 sec)

3. Title of films directed by Ethan Coen order by title.

```
+-----+
| name |
+-----+
| Fargo |
| O Brother, Where Art Thou? |
+-----+
2 rows in set (0.001 sec)
```

4. Title and year of premiere of the movies directed by Ethan Coen after 1996 order by year.

```
+-----+-----+
| name | year |
+-----+-----+
| O Brother, Where Art Thou? | 2000 |
+-----+-----+
1 row in set (0.002 sec)
```

5. Title and year of premiere of all those films that we do not know the director. order the results by film title (clue: NOT IN (subselect)).

```
+-----+-----+-----+
| id | name | year |
+-----+-----+-----+
| 256630 | Pirates of the Caribbean | 2003 |
+-----+-----+-----+
1 row in set (0.001 sec)
```

6. Name of the director, premiere year and full name and roles of the actors in the movie "Lost in Translation".

director_name	movie_title	year	actor_name	role
Sofia Coppola	Lost in Translation	2003	Akiko Monou	P Chan
Sofia Coppola	Lost in Translation	2003	Akiko Takeshita	Ms. Kawasaki
Sofia Coppola	Lost in Translation	2003	Akimitsu Naruyama	French Japanese Nightclub Pat
Sofia Coppola	Lost in Translation	2003	Akira (II) Yamaguchi	Bellboy
Sofia Coppola	Lost in Translation	2003	Akira Motomura	Old Man
Sofia Coppola	Lost in Translation	2003	Anna Faris	Kelly
Sofia Coppola	Lost in Translation	2003	Asuka Shimuzu	Kelly's Translator
Sofia Coppola	Lost in Translation	2003	Bill (I) Murray	Bob Harris
Sofia Coppola	Lost in Translation	2003	Catherine (II) Lambert	Jazz Singer
Sofia Coppola	Lost in Translation	2003	Diamond Yukai	Commercial Director
Sofia Coppola	Lost in Translation	2003	Diedrich Bollman	German Hotel Guest
Sofia Coppola	Lost in Translation	2003	François du Bois	Sausalito Piano
Sofia Coppola	Lost in Translation	2003	Fumihiko Hayashi	Charlie
Sofia Coppola	Lost in Translation	2003	Georg O.P. Eschert	German Hotel Guest
Sofia Coppola	Lost in Translation	2003	Giovanni Ribisi	John
Sofia Coppola	Lost in Translation	2003	Gregory Pekar	American Businessman #1
Sofia Coppola	Lost in Translation	2003	Hiroko Kawasaki	Hiroko
Sofia Coppola	Lost in Translation	2003	Hiroshi (I) Kawashima	Bartender, Nightclub
Sofia Coppola	Lost in Translation	2003	Hugo Codaro	Aerobics Instructor
Sofia Coppola	Lost in Translation	2003	Ikuko Takahashi	Ikebana Instructor
Sofia Coppola	Lost in Translation	2003	Julliet Akinyi	Hans
Sofia Coppola	Lost in Translation	2003	Jun Maki	Suntory Client
Sofia Coppola	Lost in Translation	2003	Kanako Nakazato	Make-Up Person
Sofia Coppola	Lost in Translation	2003	Kazuko (I) Shibata	Press Agent
Sofia Coppola	Lost in Translation	2003	Kazuo Yamada	Hospital Receptionist
Sofia Coppola	Lost in Translation	2003	Kazuyoshi Minamimagoe	Press Agent
Sofia Coppola	Lost in Translation	2003	Kei Takyo	TV Translator
Sofia Coppola	Lost in Translation	2003	Koichi (I) Tanaka	Bartender, NY Bar
Sofia Coppola	Lost in Translation	2003	Kunichi Nomura	Kun
Sofia Coppola	Lost in Translation	2003	Lisle Wilkerson	Sexy Businesswoman
Sofia Coppola	Lost in Translation	2003	Mark Willms	Carl West
Sofia Coppola	Lost in Translation	2003	Nancy (I) Steiner	Lydia Harris
Sofia Coppola	Lost in Translation	2003	Nao Asuka	Premium Fantasy Woman
Sofia Coppola	Lost in Translation	2003	Nao Kitman	Nao
Sofia Coppola	Lost in Translation	2003	Nobuhiko Kitamura	Nobu
Sofia Coppola	Lost in Translation	2003	Noguchi Takayuki	Press Agent
Sofia Coppola	Lost in Translation	2003	Osamu Shigematu	Doctor
Sofia Coppola	Lost in Translation	2003	Richard (XV) Allen	American Businessman #2
Sofia Coppola	Lost in Translation	2003	Ryo Kondo	Politician
Sofia Coppola	Lost in Translation	2003	Ryuichiro Baba	Concierge
Sofia Coppola	Lost in Translation	2003	Scarlett Johansson	Charlotte
Sofia Coppola	Lost in Translation	2003	Shigekazu Aida	Mr. Valentine
Sofia Coppola	Lost in Translation	2003	Takashi (I) Fujii	TV Host
Sofia Coppola	Lost in Translation	2003	Tetsuro Naka	Stills Photographer
Sofia Coppola	Lost in Translation	2003	Tim Leffman	Sausalito Guitar
Sofia Coppola	Lost in Translation	2003	Toshikawa Hiromi	Hiromix
Sofia Coppola	Lost in Translation	2003	Yasuhiko Hattori	Charlie's Friend
Sofia Coppola	Lost in Translation	2003	Yû Daiki	Bambie
Sofia Coppola	Lost in Translation	2003	Yuji Okabe	Politician's Aide
Sofia Coppola	Lost in Translation	2003	Yumi Ikeda	Politician's Aide
Sofia Coppola	Lost in Translation	2003	Yumika Saki	Politician's Aide

51 rows in set (0.003 sec)

7. Title of the film, premiere year and full name of the director of all those films in which the director is also an actor in their own films. Sort the results by artist name.

movie_title	year	artist_name
Shrek	2001	Andrew Adamson
Snatch.	2000	Guy Ritchie
Titanic	1997	James (I) Cameron
UHF	1989	Jay Levey
Braveheart	1995	Mel (I) Gibson
Office Space	1999	Mike (I) Judge
Pulp Fiction	1994	Quentin Tarantino
Reservoir Dogs	1992	Quentin Tarantino
Ocean's Eleven	2001	Steven Soderbergh
Garden State	2004	Zach Braff

10 rows in set (0.030 sec)

NOTE: Actors and Directors have different id despite the fact that they are the same person!! I prefer a table Artist, and we will have actors and directors together.

8. Name of the actors with whom Uma Thurman worked. Also indicate the full name and the year of the premiere of the film. Order the results by movie name and actor full name. Obviously, Uma Thurman must not be in the results.

actor_name	movie_title	year			
Ai (III) Maeda	Kill Bill: Vol. 1	2003	Perla Haney-Jardine	Kill Bill: Vol. 2	2004
Akaji Maro	Kill Bill: Vol. 1	2003	Reda Beebe	Kill Bill: Vol. 2	2004
Ambrosia Kelley	Kill Bill: Vol. 1	2003	Samuel L. Jackson	Kill Bill: Vol. 2	2004
Chia Hui Liu	Kill Bill: Vol. 1	2003	Shana Stein	Kill Bill: Vol. 2	2004
Chiaki Kuriyama	Kill Bill: Vol. 1	2003	Sid Haig	Kill Bill: Vol. 2	2004
Christopher Allen Nelson	Kill Bill: Vol. 1	2003	Sonia Angelica Padilla Curiel	Kill Bill: Vol. 2	2004
Daryl Hannah	Kill Bill: Vol. 1	2003	Stephanie L. Moore	Kill Bill: Vol. 2	2004
David Carradine	Kill Bill: Vol. 1	2003	Stevo Polyi	Kill Bill: Vol. 2	2004
Goro Daimon	Kill Bill: Vol. 1	2003	Thea Rose	Kill Bill: Vol. 2	2004
Hikaru Midorikawa	Kill Bill: Vol. 1	2003	Venessia Valentino	Kill Bill: Vol. 2	2004
Issei Takahashi	Kill Bill: Vol. 1	2003	Veronica Janet Martinez	Kill Bill: Vol. 2	2004
James Parks	Kill Bill: Vol. 1	2003	Vicki Lucai	Kill Bill: Vol. 2	2004
Jonathan Loughran	Kill Bill: Vol. 1	2003	Vivica A. Fox	Kill Bill: Vol. 2	2004
Julie Dreyfus	Kill Bill: Vol. 1	2003	William Paul Clark	Kill Bill: Vol. 2	2004
Julie Manase	Kill Bill: Vol. 1	2003	Alexis Arquette	Pulp Fiction	1994
Jun Kunimura	Kill Bill: Vol. 1	2003	Amanda Plummer	Pulp Fiction	1994
Kazuki Kitamura	Kill Bill: Vol. 1	2003	Angela (I) Jones	Pulp Fiction	1994
Kenji Ohba	Kill Bill: Vol. 1	2003	Ani Sava	Pulp Fiction	1994
Lucy Liu	Kill Bill: Vol. 1	2003	Brad (I) Parker	Pulp Fiction	1994
Michael (I) Bowen	Kill Bill: Vol. 1	2003	Brenda Hillhouse	Pulp Fiction	1994
Michael (I) Madsen	Kill Bill: Vol. 1	2003	Bronagh Gallagher	Pulp Fiction	1994
Michael (I) Parks	Kill Bill: Vol. 1	2003	Bruce Willis	Pulp Fiction	1994
Michael Kuroiwa	Kill Bill: Vol. 1	2003	Burr Steers	Pulp Fiction	1994
Naomi Kusumi	Kill Bill: Vol. 1	2003	Carl (I) Allen	Pulp Fiction	1994
Ronnie Yoshiko Fujiyama	Kill Bill: Vol. 1	2003	Chandler Lindauer	Pulp Fiction	1994
Sachiko Fujii	Kill Bill: Vol. 1	2003	Christopher Walken	Pulp Fiction	1994
Sakichi Satô	Kill Bill: Vol. 1	2003	Dick (I) Miller	Pulp Fiction	1994
Satoshi Yamanaka	Kill Bill: Vol. 1	2003	Don Blakely	Pulp Fiction	1994
Shu Lan Tuan	Kill Bill: Vol. 1	2003	Duane Whitaker	Pulp Fiction	1994
Shun Sugata	Kill Bill: Vol. 1	2003	Emil Sitka	Pulp Fiction	1994
Sonny Chiba	Kill Bill: Vol. 1	2003	Eric (I) Clark	Pulp Fiction	1994
Stevo Polyi	Kill Bill: Vol. 1	2003	Eric Stoltz	Pulp Fiction	1994
Tetsuro Shimaguchi	Kill Bill: Vol. 1	2003	Frank Whaley	Pulp Fiction	1994
Vivica A. Fox	Kill Bill: Vol. 1	2003	Gary Shorelle	Pulp Fiction	1994
Xiaohui Hu	Kill Bill: Vol. 1	2003	Harvey Keitel	Pulp Fiction	1994
Yoji Tanaka	Kill Bill: Vol. 1	2003	Jerome Patrick Hoban	Pulp Fiction	1994
Yoshiko Yamaguchi	Kill Bill: Vol. 1	2003	John Travolta	Pulp Fiction	1994
Yoshiyuki Morishita	Kill Bill: Vol. 1	2003	Joseph Pilato	Pulp Fiction	1994
Yuki Kazamatsuri	Kill Bill: Vol. 1	2003	Julia Sweeney	Pulp Fiction	1994
Zhang Jin Zhan	Kill Bill: Vol. 1	2003	Karen Maruyama	Pulp Fiction	1994
Al Manuel Douglas	Kill Bill: Vol. 2	2004	Kathy Griffin	Pulp Fiction	1994
Bo Svenson	Kill Bill: Vol. 2	2004	Laura Lovelace	Pulp Fiction	1994
Caitlin Keats	Kill Bill: Vol. 2	2004	Lawrence Bender	Pulp Fiction	1994
Chia Hui Liu	Kill Bill: Vol. 2	2004	Linda Kaye	Pulp Fiction	1994
Christopher Allen Nelson	Kill Bill: Vol. 2	2004	Lorelei Leslie	Pulp Fiction	1994
Citlati Guadalupe Bojorquez	Kill Bill: Vol. 2	2004	Maria de Medeiros	Pulp Fiction	1994
Claire Smithies	Kill Bill: Vol. 2	2004	Michael Gilden	Pulp Fiction	1994
Clark Middleton	Kill Bill: Vol. 2	2004	Paul Calderon	Pulp Fiction	1994
Daryl Hannah	Kill Bill: Vol. 2	2004	Peter (I) Greene	Pulp Fiction	1994
David Carradine	Kill Bill: Vol. 2	2004	Phil LaMarr	Pulp Fiction	1994
Graciela Salazar Mendoza	Kill Bill: Vol. 2	2004	Quentin Tarantino	Pulp Fiction	1994
Helen (IV) Kim	Kill Bill: Vol. 2	2004	Rich Turner	Pulp Fiction	1994
Jeannie Epper	Kill Bill: Vol. 2	2004	Robert Ruth	Pulp Fiction	1994
Jorge (II) Silva	Kill Bill: Vol. 2	2004	Rosanna Arquette	Pulp Fiction	1994
Larry Bishop	Kill Bill: Vol. 2	2004	Samuel L. Jackson	Pulp Fiction	1994
Laura Cayouette	Kill Bill: Vol. 2	2004	Stephen Hibbert	Pulp Fiction	1994
Lucia Cruz Marroquin	Kill Bill: Vol. 2	2004	Steve Buscemi	Pulp Fiction	1994
Lucy Liu	Kill Bill: Vol. 2	2004	Susan Griffiths	Pulp Fiction	1994
Maria de Lourdes Lombera	Kill Bill: Vol. 2	2004	Sy Sher	Pulp Fiction	1994
Maria Del Rosario Gutiérrez	Kill Bill: Vol. 2	2004	Tim Roth	Pulp Fiction	1994
Michael (I) Madsen	Kill Bill: Vol. 2	2004	Venessia Valentino	Pulp Fiction	1994
Michael (I) Parks	Kill Bill: Vol. 2	2004	Ving Rhames	Pulp Fiction	1994
Patricia Silva	Kill Bill: Vol. 2	2004			

125 rows in set (0.036 sec)

9. Name of the directors who have not been actors in their films, sorted by code.

```

+-----+
| director_name |
+-----+
| Andy Wachowski |
| Cameron Crowe  |
| Christopher Nolan |
| Clint Eastwood |
| Darren Aronofsky |
| David Fincher  |
| David Koepp    |
| Ethan Coen     |
| Francis Ford Coppola |
| Frank Darabont |
| George Lucas   |
| Herbert (I) Ross |
| Joel Coen      |
| John (I) Hughes |
| John (I) Landis |
| John Musker    |
| Larry Wachowski |
| Oliver (I) Stone |
| Paul (I) Verhoeven |
| Rob Reiner     |
| Ron Clements   |
| Ron Howard     |
| Sofia Coppola  |
| Vicky Jensen   |
+-----+
24 rows in set (0.026 sec)

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10. List of directors sorted by full name, indicating the number of films they have directed.

```

+-----+-----+
| director_name | count(*) |
+-----+-----+
| Andrew Adamson | 1 |
| Andy Wachowski | 1 |
| Cameron Crowe  | 1 |
| Christopher Nolan | 2 |
| Clint Eastwood | 1 |
| Darren Aronofsky | 1 |
| David Fincher  | 1 |
| David Koepp    | 1 |
| Ethan Coen     | 2 |
| Francis Ford Coppola | 1 |
| Frank Darabont | 1 |
| George Lucas   | 1 |
| Guy Ritchie    | 1 |
| Herbert (I) Ross | 1 |
| James (I) Cameron | 2 |
| Jay Levey      | 1 |
| Joel Coen      | 2 |
| John (I) Hughes | 1 |
| John (I) Landis | 1 |
| John Musker    | 1 |
| Larry Wachowski | 1 |
| Mel (I) Gibson | 1 |
| Mike (I) Judge | 1 |
| Oliver (I) Stone | 1 |
| Paul (I) Verhoeven | 1 |
| Quentin Tarantino | 4 |
| Rob Reiner     | 1 |
| Ron Clements   | 1 |
| Ron Howard     | 1 |
| Sofia Coppola  | 1 |
| Steven Soderbergh | 1 |
| Vicky Jensen   | 1 |
| Zach Braff     | 1 |
+-----+-----+
33 rows in set (0.001 sec)

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11. List of actors with surname starting with a 'P', indicating the number of films in which they have participated ordered by the number of films descendent.

first_name	last_name	count(R.movie_id)
Steveo	Polyi	3
Bill	Paxton	3
Brad	Pitt	3
David	Proval	2
Chris (I)	Penn	2
Michael (I)	Parks	2
Joe	Pantoliano	2
Timothy Paul	Perez	1
Rick	Petrucelli	1
Shaun	Pearson	1
Catherine	Porter	1
Anthony	Parrulli	1
Jane	Pratt	1
Natalie	Portman	1
Alibe	Parsons	1
James	Parks	1
Duncan	Putney	1
Mark	Pinter	1
Sarah Jessica	Parker	1
Amanda	Plummer	1
Pat	Perkins	1
Sean	Penn	1
John	Paragon	1
Brad (I)	Parker	1
Steve F.	Price Jr.	1
Connor	Paolo	1
Jonathan (I)	Phillips	1
J.T.	Pontino	1
Gary (I)	Palmer	1
David F.	Powers	1
Guy (I)	Pearce	1
Lew	Palter	1
Todd	Peirce	1
Justin	Possenti	1
Bill	Pickle	1
Antonio	Polk	1
Kevin	Pollak	1
Anthony Ray	Parker	1
Miguel (I)	Pérez	1
Marco	Perella	1
David	Prowse	1
Harve	Presnell	1
Gregory	Pekar	1
Robert (I)	Peters	1
Shah Mohammed Reza	Pahlavi	1
Lorne	Peterson	1
Robert	Paterson	1
Sonia Angelica	Padilla Curiel	1
Frank (III)	Patton	1
Al	Pacino	1
Clive	Pearse	1
Manley	Pope Jr.	1
Del	Pentecost	1
Ray	Proscia	1
Jim (II)	Parsons	1
Joe	Pecoraro	1
Alan	Polonsky	1
Beata	Pozniak	1
John	Pungitore	1
Emo	Philips	1
John	Perryman	1
Joseph	Pilato	1
Cheryl	Penland	1
Michael	Peavey	1
Judy	Prestininzi	1
Gene	Pack	1
George	Petrie	1
Francis Gary	Powers	1
T. Bruce	Page	1
Dan (I)	Pettersson	1
Stephen	Pearlman	1
Tony	Plana	1
Oliver	Page	1
J.A.	Preston	1
Janaya	Pender	1
Greg (II)	Pitts	1
Joe	Pesci	1
Jack	Purvis	1
Melissa	Peterman	1
Gary	Pike	1
Ted	Pennebaker	1
Marcus	Powell	1
Steve (I)	Park	1
Malachi	Pearson	1

84 rows in set (0.000 sec)

12. Do you think DIRECTORS and ACTORS should be the same table? Explain your answer.

13. Having DIRECTORS and ACTORS separated in two tables, can we have inconsistent data?