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CSC 370
Assignment 5

Q(1)

```
imdb=> select episodeof, avg(rank) as arank, avg(votes) as avote,
count(distinct epnumber) as cepisodes, count(distinct season) as
cseason from episodes natural join ratings group by episodeof having
avg(rank) > 8.5 and avg(votes) > 1000 and count(distinct season) >= 4
order by avg(rank), avg(votes) desc;
```

episodeof	arank	avote	cepisodes	cseason
"Arrested Development" (2003)	8.51470588235294	1062.6176470588235294	22	4
"Once Upon a Time" (2011)	8.52123893805309	1000.0530973451327434	24	5
"Arrow" (2012)	8.52717391304348	3053.7934782608695652	23	4
"Mad Men" (2007)	8.53152173913043	1100.8804347826086957	14	7
"Vikings" (2013)	8.53589743589744	1740.2051282051282051	10	4
"Friends" (1994)	8.54152542372882	1642.8898305084745763	25	10
"Boardwalk Empire" (2010)	8.55087719298246	1095.0877192982456140	13	5
"Luther" (2010)	8.59411764705882	1103.4705882352941176	6	4
"Dexter" (2006)	8.64166666666667	2802.8750000000000000	12	8
"The Sopranos" (1999)	8.67209302325582	1574.4186046511627907	21	6
"Lost" (2004)	8.67692307692308	2819.5811965811965812	24	6
"Prison Break" (2005)	8.68395061728395	1629.8518518518518519	24	4
"Sons of Anarchy" (2008)	8.69239130434783	1145.6195652173913043	14	7
"House M.D." (2004)	8.69318181818182	1439.4602272727272727	24	8
"Supernatural" (2005)	8.71611570247934	2059.5123966942148760	24	11
"House of Cards" (2013)	8.72884615384615	2628.5000000000000000	13	4
"The Wire" (2002)	8.84333333333333	1422.1166666666666667	13	5
"Suits" (2011)	8.85357142857143	1318.0000000000000000	16	6
"Sherlock" (2010)	8.94166666666667	15931.33333333333333	4	4
"Game of Thrones" (2011)	8.99833333333333	19718.33333333333333	10	6
"Breaking Bad" (2008)	9.01935483870967	11124.709677419355	16	5
"Person of Interest" (2011)	9.13980582524272	2047.6310679611650485	23	5

(22 rows)

Q(2)

```
imdb=> with ofmovies as (select * from ratings natural join
productions where attr is null and votes >= 50000), max as (select
max(rank) as rank from ofmovies) select title, year, rank, votes from
ofmovies natural join max;
```

title	year	rank	votes
The Shawshank Redemption	1994	9.3	1698604

(1 row)

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Q(3)

```
imdb=> with ofmovies as (select * from productions natural join
ratings natural join roles where attr is null and rank >= 8 and votes
>= 50000) select pid, count(id) as num, avg(rank) as rank from
ofmovies group by pid having count(id) >= 10 order by avg(rank);
```

pid	num	rank
Tovey, Arthur	11	8.21818181818182
McGowan, Mickie	10	8.23
Lynn, Sherry (I)	12	8.25833333333333
Flowers, Bess	12	8.25833333333333
Ratzenberger, John (I)	12	8.28333333333333
Oliveira, Joseph (III)	10	8.38

(6 rows)

Q(4)

```
imdb=> with ofmovies as (select pid, count(pid) as count from roles
natural join ratings natural join productions where attr is null and
votes >= 50000 and rank > 8 group by pid), max as (select max(count)
as count from ofmovies), combine as (select pid, id, billing,
character from roles natural join ratings where votes >= 50000 and
rank > 8) select pid, id, billing, character from ofmovies natural
join max natural join combine;
```

pid	id	billing	character
Ratzenberger, John (I)	Finding Nemo (2003)	24	Fish School
Ratzenberger, John (I)	Gandhi (1982)	124	American Lieutenant
Ratzenberger, John (I)	Inside Out (2015/I)	17	Fritz
Ratzenberger, John (I)	Monsters, Inc. (2001)	8	The Abominable
Snowman			
Ratzenberger, John (I)	Sen to Chihiro no kamikakushi (2001)	56	Assistant Manager
Ratzenberger, John (I)	Star Wars: Episode V - The Empire Strikes Back (1980)	31	Rebel Force Major
Derlin			
Ratzenberger, John (I)	Toy Story (1995)	6	Hamm
Ratzenberger, John (I)	Toy Story 3 (2010)	8	Hamm
Ratzenberger, John (I)	Up (2009)	7	Construction
Foreman Tom			
Ratzenberger, John (I)	WALL·E (2008)	6	John

(10 rows)

Q(5)

```

imdb=> with goodmovies as (select * from productions natural join
ratings natural join directors where attr is null and votes >= 40000),
gooddirector as (select pid, count(id) as goodones, avg(rank) as
avggoodones from goodmovies where rank > 8.4 group by pid),
othermovies as (select pid, count(id) as rest, avg(rank) as avgrest
from goodmovies where rank <= 8.4 group by pid)
select pid, to_char(goodones * 100/(rest + goodones), '999G999G99D0%')
as prop, rest + goodones as total, goodones, to_char(avggoodones,
'FM9.0') as avggoodones, rest, to_char(avgrest, 'FM9.0') as avgrest,
to_char((avggoodones - avgrest), 'FM9.0')::float as diff from
gooddirector natural join othermovies where goodones + rest >= 8 order
by diff desc, prop;

```

pid	prop	total	goodones	avggoodones	rest	avgrest	diff
Coppola, Francis Ford	33.0%	9	3	8.9	6	7.2	1.7
Zemeckis, Robert	13.0%	15	2	8.7	13	7.1	1.6
Scott, Ridley	11.0%	18	2	8.5	16	7.0	1.5
Singer, Bryan	12.0%	8	1	8.6	7	7.1	1.5
Jackson, Peter (I)	27.0%	11	3	8.8	8	7.4	1.4
Spielberg, Steven	12.0%	25	3	8.7	22	7.4	1.2
Fincher, David	20.0%	10	2	8.7	8	7.5	1.2
Nolan, Christopher (I)	66.0%	9	6	8.7	3	7.7	1
Scorsese, Martin (I)	13.0%	15	2	8.6	13	7.7	0.9
Tarantino, Quentin	16.0%	12	2	8.7	10	7.8	0.9
Miyazaki, Hayao	10.0%	10	1	8.6	9	8.0	0.6
Hitchcock, Alfred (I)	14.0%	14	2	8.5	12	8.0	0.5
Kubrick, Stanley	18.0%	11	2	8.5	9	8.0	0.5

(13 rows)