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## Jakob Roberts - v00484900

## CSC370

## Assignment 4

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1.

WITH

sea AS (SELECT episodeof,MAX(season) AS cseason,COUNT(episodeof) AS cepisodes FROM (episodes NATURAL JOIN ratings) WHERE rank IS NOT NULL GROUP BY episodeof),

resea AS (SELECT id,rank,votes,episodeof FROM (sea NATURAL JOIN episodes NATURAL JOIN ratings)),

getrnk AS (SELECT episodeof,AVG(rank) AS arank FROM resea GROUP BY episodeof HAVING AVG(rank)>8),

getvts AS (SELECT episodeof,AVG(votes) AS avotes FROM resea GROUP BY episodeof HAVING AVG(votes) >= 1000)

SELECT DISTINCT episodeof,arank,avotes,cepisodes,cseason FROM (sea NATURAL JOIN getrnk NATURAL JOIN getvts) WHERE cseason >= 4 ORDER BY arank DESC,avotes DESC;

episodeof | arank | avotes | cepisodes | cseason

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"Person of Interest" (2011) | 8.99186046511628 | 1168.7441860465116279 | 86 | 4

"House M.D." (2004) | 8.68579545454546 | 1178.9659090909090909 | 176 | 8

"Supernatural" (2005) | 8.65446009389671 | 1557.0000000000000000 | 213 | 10

"Lost" (2004) | 8.60762711864406 | 2280.9067796610169492 | 118 | 6

"Dexter" (2006) | 8.58125 | 2316.4895833333333333 | 96 | 8

"Prison Break" (2005) | 8.58024691358024 | 1177.5308641975308642 | 81 | 4

"The Sopranos" (1999) | 8.57674418604651 | 1673.6162790697674419 | 86 | 6

"Game of Thrones" (2011) | 8.5275 | 9614.2250000000000000 | 40 | 4

"Friends" (1994) | 8.50635593220339 | 1089.3347457627118644 | 236 | 10

"The Walking Dead" (2010) | 8.46119402985075 | 5075.4029850746268657 | 67 | 5

"Homeland" (2011) | 8.41041666666667 | 1670.0000000000000000 | 48 | 4

"Fringe" (2008) | 8.393 | 1049.4300000000000000 | 100 | 5

"Breaking Bad" (2008) | 8.37903225806452 | 8616.6935483870967742 | 62 | 5

"Community" (2009) | 8.35544554455445 | 1039.3267326732673267 | 101 | 6

"The Big Bang Theory" (2007) | 8.14972067039107 | 1323.4189944134078212 | 179 | 8

"How I Met Your Mother" (2005) | 8.12884615384615 | 1446.8846153846153846 | 208 | 9

"Buffy the Vampire Slayer" (1997) | 8.09103448275863 | 1138.9724137931034483 | 145 | 7

"South Park" (1997) | 8.08560311284047 | 1079.7470817120622568 | 257 | 18

"American Horror Story" (2011) | 8.06666666666667 | 1656.3137254901960784 | 51 | 4

"Doctor Who" (2005) | 8.04887218045113 | 2421.2556390977443609 | 133 | 8

"The X Files" (1993) | 8.03681592039801 | 1252.2985074626865672 | 201 | 9

(21 rows)

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2.

WITH

tit AS (SELECT id,year,title FROM productions WHERE attr IS NULL),

main AS (SELECT title,year,rank,votes FROM (tit NATURAL JOIN ratings) WHERE votes >= 50000),

agr AS (SELECT MAX(rank) AS rank FROM main),

thejoin AS (SELECT \* FROM agr NATURAL JOIN main)

SELECT title,year,rank,votes FROM thejoin;

title | year | rank | votes

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The Shawshank Redemption | 1994 | 9.3 | 1424596

(1 row)

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3.

WITH

mov AS (SELECT \* FROM (productions NATURAL JOIN ratings) WHERE attr IS NULL AND rank >=8 AND votes >=50000),

getpid AS (SELECT pid,rank FROM (roles NATURAL JOIN mov)),

getrnk AS (SELECT pid,AVG(rank) AS avg FROM getpid GROUP BY pid),

getcnt AS (SELECT pid,COUNT(pid) AS count FROM getpid GROUP BY pid)

SELECT DISTINCT pid,count,avg FROM (getrnk NATURAL JOIN getcnt NATURAL JOIN getpid) WHERE count >=10 order by avg;

pid | count | avg

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Tovey, Arthur | 10 | 8.27

Lynn, Sherry (I) | 11 | 8.27272727272727

Jackson, Samuel L. | 10 | 8.28

Ratzenberger, John | 11 | 8.29090909090909

Flowers, Bess | 12 | 8.30833333333334

De Niro, Robert | 10 | 8.36

(6 rows)

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4.

WITH

theid AS (SELECT id FROM (productions NATURAL JOIN ratings) WHERE attr IS NULL AND votes >=50000 AND rank >=7.1),

thechar AS (SELECT \* FROM (theid NATURAL JOIN roles)),

thecount AS (SELECT pid,COUNT(pid) AS count FROM thechar GROUP BY pid),

themax AS (SELECT MAX(count) AS count FROM thecount),

thejoin AS (SELECT \* FROM (themax NATURAL JOIN thecount))

SELECT pid,id,billing,character FROM (thejoin NATURAL JOIN thechar) ORDER BY id;

pid | id | billing | character

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De Niro, Robert | A Bronx Tale (1993) | 1 | Lorenzo

De Niro, Robert | American Hustle (2013) | | Victor Tellegio

De Niro, Robert | Angel Heart (1987) | 2 | Louis Cyphre

De Niro, Robert | Awakenings (1990) | 1 | Leonard Lowe

De Niro, Robert | Brazil (1985) | 2 | Harry Tuttle

De Niro, Robert | Cape Fear (1991) | 1 | Max Cady

De Niro, Robert | Casino (1995) | 1 | Sam 'Ace' Rothstein

De Niro, Robert | Fahrenheit 9/11 (2004) | | Himself

De Niro, Robert | Goodfellas (1990) | 1 | James Conway

De Niro, Robert | Heat (1995) | 2 | Neil McCauley

De Niro, Robert | Jackie Brown (1997) | 6 | Louis Gara

De Niro, Robert | Limitless (2011/I) | 2 | Carl Van Loon

De Niro, Robert | Mean Streets (1973) | 1 | Johnny Boy

De Niro, Robert | Men of Honor (2000) | 1 | Master Chief Billy Sunday

De Niro, Robert | Once Upon a Time in America (1984) | 1 | David 'Noodles' Aaronson

De Niro, Robert | Raging Bull (1980) | 1 | Jake La Motta

De Niro, Robert | Ronin (1998) | 1 | Sam

De Niro, Robert | Silver Linings Playbook (2012) | 3 | Pat Sr.

De Niro, Robert | Sleepers (1996) | 3 | Father Bobby

De Niro, Robert | Stardust (2007) | 34 | Captain Shakespeare

De Niro, Robert | Taxi Driver (1976) | 10 | Travis Bickle

De Niro, Robert | The Deer Hunter (1978) | 1 | Michael

De Niro, Robert | The Godfather: Part II (1974) | 4 | Vito Corleone

De Niro, Robert | The Untouchables (1987) | 5 | Al Capone

De Niro, Robert | Wag the Dog (1997) | 2 | Conrad Brean

(25 rows)

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5.

WITH

good AS (SELECT id FROM (ratings NATURAL JOIN productions) WHERE attr IS NULL AND votes >=50000),

direct AS (SELECT pid,COUNT(pid) AS total FROM (productions NATURAL JOIN directors NATURAL JOIN ratings) WHERE attr IS NULL AND votes >=50000 GROUP BY pid HAVING COUNT(pid) >=10),

redirect AS (SELECT id,pid,total FROM (direct NATURAL JOIN directors NATURAL JOIN productions NATURAL JOIN good)),

regroup AS (SELECT id,pid,total FROM (redirect NATURAL JOIN good NATURAL JOIN ratings) where rank >8),

getgood AS (SELECT pid,COUNT(pid) AS goodones FROM regroup GROUP BY pid),

getperc AS (SELECT pid,to\_char(((goodones::real\*100/total::real)), '990.0TH"%"') AS prop FROM (getgood NATURAL JOIN regroup)),

avggood AS (SELECT pid,AVG(rank) AS avggoodones FROM (regroup NATURAL JOIN ratings) GROUP BY pid),

therest AS (SELECT pid,(total-goodones) AS rest FROM (getgood NATURAL JOIN regroup)),

avrest AS (SELECT pid,AVG(rank) AS avgrest FROM (redirect NATURAL JOIN ratings) WHERE id NOT IN (SELECT id FROM regroup) GROUP BY pid),

getdiff AS (SELECT pid,(avggoodones-avgrest) AS diff FROM (avggood NATURAL JOIN avrest))

SELECT DISTINCT pid,prop,total,goodones,TO\_CHAR(avggoodones, '90.0TH') AS avggoodones,rest,TO\_CHAR(avgrest, '90.0TH') AS avgrest,TO\_CHAR(diff, '90.0TH') AS diff FROM (regroup NATURAL JOIN getperc NATURAL JOIN getgood NATURAL JOIN avggood NATURAL JOIN therest NATURAL JOIN avrest NATURAL JOIN getdiff) ORDER BY avgrest DESC,prop DESC,pid DESC;

pid | prop | total | goodones | avggoodones | rest | avgrest | diff

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Hitchcock, Alfred (I) | 90.0% | 10 | 9 | 8.3 | 1 | 7.8 | 0.5

Kubrick, Stanley | 72.7% | 11 | 8 | 8.3 | 3 | 7.7 | 0.7

Jackson, Peter (I) | 30.0% | 10 | 3 | 8.8 | 7 | 7.5 | 1.3

Fincher, David | 30.0% | 10 | 3 | 8.6 | 7 | 7.5 | 1.1

Tarantino, Quentin | 54.5% | 11 | 6 | 8.4 | 5 | 7.4 | 1.0

Scorsese, Martin (I) | 53.8% | 13 | 7 | 8.3 | 6 | 7.4 | 1.0

Eastwood, Clint | 23.1% | 13 | 3 | 8.2 | 10 | 7.3 | 0.9

Spielberg, Steven | 20.8% | 24 | 5 | 8.5 | 19 | 7.3 | 1.2

Coen, Joel | 17.6% | 17 | 3 | 8.2 | 14 | 7.3 | 0.9

Coen, Ethan | 17.6% | 17 | 3 | 8.2 | 14 | 7.3 | 0.9

Zemeckis, Robert | 14.3% | 14 | 2 | 8.7 | 12 | 7.1 | 1.6

Howard, Ron (I) | 18.2% | 11 | 2 | 8.2 | 9 | 7.0 | 1.2

Scott, Ridley | 18.8% | 16 | 3 | 8.4 | 13 | 6.9 | 1.5

Stone, Oliver (I) | 9.1% | 11 | 1 | 8.1 | 10 | 6.8 | 1.3

Rodriguez, Robert (I) | 9.1% | 11 | 1 | 8.1 | 10 | 6.8 | 1.3

(15 rows)