

DSC 450 Winter Assignment-2

Name: Umair Chaanda

Part: 2

1. 1pt] Find the name of all restaurants offering Indian cuisine.

Oracle SQL Developer : C:\Users\mkalo\OneDrive - DePaul University\DePaul\6. Winter 18-19\DSC 450 Database Processing (Formerly CSC 455)\3. Lecture3-01222019\Assignment2\B_Umair.sql

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SQL Worksheet History

Worksheet Query Builder

```
SELECT name
FROM restaurant
WHERE cuisine = 'Indian';
```

Query Result x

SQL All Rows Fetched: 4 in 0.018 seconds

NAME
1 India House Restaurant
2 Bombay Wraps
3 Rangoli
4 Cumin

SQL History

SQL	Connection	TimeStamp	Type	Executed	Duration(seconds)
SELECT name FROM restaurant WHERE cuisine = 'Indian';	dsc450	10-FEB-19 04.17 PM	SQL	1	0.018

2. [1pt] Find restaurant names that received a rating of 4 or 5, sort them in increasing order.

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The screenshot shows the Oracle SQL Developer interface. The 'Worksheet' tab is active, displaying the following SQL query:

```
SELECT distinct a.name
FROM restaurant a
INNER JOIN rating b
ON a.rid = b.rid
WHERE b.stars IN (4,5)
ORDER BY a.name;
```

The 'Query Result' tab shows the results of the query, with 4 rows fetched in 0.018 seconds. The results are as follows:

NAME
1 India House Restaurant
2 Jade Court
3 MingHin Cuisine
4 Shanghai Terrace

The 'SQL History' tab at the bottom shows the executed queries:

SQL	Connection	TimeStamp	Type	Executed	Duration(seconds)
SELECT distinct a.name FROM restaurant a INNER JOIN rating b ON a.rid = b.rid WHERE b.stars IN (4,5) ...	dsc450	10-FEB-19 04.18 PM	SQL	1	0.018
SELECT name FROM restaurant WHERE cuisine = 'Indian';	dsc450	10-FEB-19 04.17 PM	SQL	1	0.018

3. [1pt] Find the names of all restaurants that have no rating.

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The screenshot shows the Oracle SQL Developer interface. The 'Worksheet' tab is active, displaying the following SQL query:

```
SELECT distinct a.name
FROM restaurant a
LEFT OUTER JOIN rating b
ON a.rid = b.rid
WHERE b.rid IS NULL;
```

The 'Query Result' tab shows the results of the query, with 2 rows fetched in 0.009 seconds. The results are as follows:

NAME
1 Bombay Wraps
2 Shanghai Inn

The 'SQL History' tab at the bottom shows the executed queries:

SQL	Connection	TimeStamp	Type	Executed	Duration(seconds)
SELECT distinct a.name FROM restaurant a LEFT OUTER JOIN rating b ON a.rid = b.rid WHERE b.rid IS NULL;	dsc450	10-FEB-19 04.20 PM	SQL	1	0.009
SELECT distinct a.name FROM restaurant a INNER JOIN rating b ON a.rid = b.rid WHERE b.stars IN (4,5) ...	dsc450	10-FEB-19 04.18 PM	SQL	1	0.018
SELECT name FROM restaurant WHERE cuisine = 'Indian';	dsc450	10-FEB-19 04.17 PM	SQL	1	0.018

4. [2pt] Some reviewers didn't provide a date with their rating. Find the names of all reviewers who have ratings with a NULL value for the date.

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The screenshot shows the Oracle SQL Developer interface. The main window displays a SQL query in the 'Worksheet' tab. The query is as follows:

```
SELECT distinct a.name
FROM reviewer a
FULL OUTER JOIN rating b
ON a.vid = b.vid
WHERE b.ratingdate IS NULL;
```

Below the query, the 'Query Result' tab shows the results of the query. The results are displayed in a table with the following data:

NAME
1 Daniel L.
2 Suikey S.

At the bottom of the interface, the 'SQL History' tab shows a list of recent queries. The first query in the history is the same as the one shown in the 'Query Result' tab. The history table has the following columns: SQL, Connection, TimeStamp, Type, Executed, and Duration(seconds).

SQL	Connection	TimeStamp	Type	Executed	Duration(seconds)
SELECT distinct a.nameFROM reviewer a FULL OUTER JOIN rating bON a.vid = b.vidWHERE b.ratingdate I...	dsc450	10-FEB-19 04.20 PM	SQL	1	0.02
SELECT distinct a.nameFROM restaurant a LEFT OUTER JOIN rating bON a.rid = b.ridWHERE b.rid IS NULL;	dsc450	10-FEB-19 04.20 PM	SQL	1	0.009
SELECT distinct a.name FROM restaurant a INNER JOIN rating b ON a.rid = b.rid WHERE b.stars IN (4,5) ...	dsc450	10-FEB-19 04.18 PM	SQL	1	0.018
SELECT name FROM restaurant WHERE cuisine = 'Indian';	dsc450	10-FEB-19 04.17 PM	SQL	1	0.018

5. [2pt] For all cases where the same reviewer rated the same restaurant twice and gave it a higher rating the second time, return the reviewer's name and the name of the restaurant.

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SQL Worksheet History

Worksheet Query Builder

```

SELECT reviewer.name, restaurant.name
FROM reviewer, restaurant,
(
  SELECT r1.rid, r1.vid
  FROM rating r1, rating r2
  WHERE r1.rid=r2.rid
  AND r1.vid=r2.vid
  AND r2.ratingdate>r1.ratingdate
  AND r2.stars>r1.stars
) M
WHERE reviewer.vid=M.vid
AND restaurant.rid=M.rid;

```

Query Result x

All Rows Fetched: 1 in 0.017 seconds

NAME	NAME_1
1 Sarah M.	India House Restaurant

SQL History

SQL	Connection	TimeStamp	Type	Executed	Duration(seconds)
SELECT reviewer.name, restaurant.nameFROM reviewer, restaurant, (SELECT r1.rid, r1.vid FROM ...	dsc450	10-FEB-19 04.21 PM	SQL	1	0.017
SELECT distinct a.nameFROM reviewer a FULL OUTER JOIN rating bON a.vid = b.vidWHERE b.ratingdate I...	dsc450	10-FEB-19 04.20 PM	SQL	1	0.02
SELECT distinct a.nameFROM restaurant a LEFT OUTER JOIN rating bON a.rid = b.ridWHERE b.rid IS NULL;	dsc450	10-FEB-19 04.20 PM	SQL	1	0.009
SELECT distinct a.name FROM restaurant a INNER JOIN rating b ON a.rid = b.rid WHERE b.stars IN (4,5) ...	dsc450	10-FEB-19 04.18 PM	SQL	1	0.018
SELECT name FROM restaurant WHERE cuisine = 'Indian';	dsc450	10-FEB-19 04.17 PM	SQL	1	0.018

6. [3pt] For each restaurant that has at least one rating, find the highest number of stars that a restaurant received. Return the restaurant name and number of stars. Sort by restaurant name.

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SQL Worksheet History

Worksheet Query Builder

```

SELECT restaurant.name, MAX(rating.stars)
FROM rating
INNER JOIN restaurant
ON restaurant.rid=rating.rid
GROUP BY restaurant.name
ORDER BY restaurant.name;

```

Query Result x

All Rows Fetched: 6 in 0.018 seconds

NAME	MAX(RATING.STARS)
1 Cumin	3
2 India House Restaurant	4
3 Jade Court	4
4 MingHin Cuisine	5
5 Rangoli	3
6 Shanghai Terrace	5

SQL History

SQL	Connection	TimeStamp	Type	Executed	Duration(seconds)
SELECT restaurant.name, MAX(rating.stars)FROM rating INNER JOIN restaurantON restaurant.rid=rating...	dsc450	10-FEB-19 04.23 PM	SQL	1	0.018
SELECT reviewer.name, restaurant.nameFROM reviewer, restaurant, (SELECT r1.rid, r1.vid FROM ...	dsc450	10-FEB-19 04.21 PM	SQL	1	0.017
SELECT distinct a.nameFROM reviewer a FULL OUTER JOIN rating bON a.vid = b.vidWHERE b.ratingdate I...	dsc450	10-FEB-19 04.20 PM	SQL	1	0.02
SELECT distinct a.nameFROM restaurant a LEFT OUTER JOIN rating bON a.rid = b.ridWHERE b.rid IS NULL;	dsc450	10-FEB-19 04.20 PM	SQL	1	0.009
SELECT distinct a.name FROM restaurant a INNER JOIN rating b ON a.rid = b.rid WHERE b.stars IN (4,5) ...	dsc450	10-FEB-19 04.18 PM	SQL	1	0.018
SELECT name FROM restaurant WHERE cuisine = 'Indian';	dsc450	10-FEB-19 04.17 PM	SQL	1	0.018

7. [5pt] For each restaurant, return the name and the 'rating spread', that is, the difference between highest and lowest ratings given to that restaurant. Sort by rating spread from highest to lowest, then by restaurant name.

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SQL Worksheet History

Files

Connections

Reports

Worksheet Query Builder

```

SELECT restaurant.name, (MAX(stars) - MIN(stars)) spread
FROM restaurant
INNER JOIN rating
ON restaurant.rid=rating.rid
GROUP BY restaurant.name
ORDER BY spread DESC, restaurant.name;

```

Query Result x

All Rows Fetched: 6 in 0.015 seconds

NAME	SPREAD
1 India House Restaurant	2
2 Jade Court	2
3 Shanghai Terrace	2
4 Cumin	1
5 MingHin Cuisine	1
6 Rangoli	1

SQL History

SQL	Connection	TimeStamp	Type	Executed	Duration(seconds)
SELECT restaurant.name, (MAX(stars) - MIN(stars)) spreadFROM restaurantINNER JOIN ratingON restaur...	dsc450	10-FEB-19 04.25 PM	SQL	1	0.015
SELECT restaurant.name, MAX(rating.stars)FROM rating INNER JOIN restaurantON restaurant.rid=rating....	dsc450	10-FEB-19 04.23 PM	SQL	1	0.018
SELECT reviewer.name, restaurant.nameFROM reviewer, restaurant, (SELECT r1.rid, r1.vid FROM ...	dsc450	10-FEB-19 04.21 PM	SQL	1	0.017
SELECT distinct a.nameFROM reviewer a FULL OUTER JOIN rating bON a.vid = b.vidWHERE b.ratingdate I...	dsc450	10-FEB-19 04.20 PM	SQL	1	0.02
SELECT distinct a.nameFROM restaurant a LEFT OUTER JOIN rating bON a.rid = b.ridWHERE b.rid IS NULL;	dsc450	10-FEB-19 04.20 PM	SQL	1	0.009
SELECT distinct a.name FROM restaurant a INNER JOIN rating b ON a.rid = b.rid WHERE b.stars IN (4,5) ...	dsc450	10-FEB-19 04.18 PM	SQL	1	0.018
SELECT name FROM restaurant WHERE cuisine = 'Indian';	dsc450	10-FEB-19 04.17 PM	SQL	1	0.018

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