NoSQL Database Management Lab

Lab Manual with Student Lab Record

Developed By

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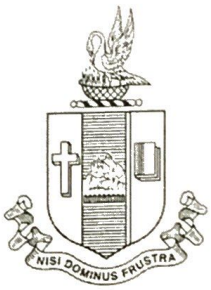

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BONAFIDE CERTIFICATE

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Course Title NOSQL Database Management Lab

Certified that this is the bonafide record of work done by me during **Odd / Even** Semester of **2020 – 2021** and submitted for the Practical Examinations on

_____

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Examiners

1. _____

2. _____

Grade Sheet

Roll No	205229119	Name	Maheshvaran.S
Year	1	Semester	1
	Instructor Name		

Lab	Activity	Grade	Sign/Date
1	Designing and Querying MyRestaurant Database		
2	India Weather Analytics Using Historical Data Part-I		
3	India Weather Analytics Using Historical Data Part-II		
4	Retail Sales Analytics Part-I		
5	Retail Sales Analytics Part-II		
6	Retail Sales Analytics Part-III		
7	University Course Enrollment Data Analytics		
8	Retail Sales Analytics Part-IV		
9	Student Information System Design using MongoDB Part-I		
10	Student Information System Design using MongoDB Part-II		
11	Ecommerce Product Catalog Design Using MongoDB		
12	Neo4J Play Ground Exercise		
13	Designing Movie Graph Database using Neo4J		
14	Designing Flight Graph Database Using Neo4J		

Question: 1

```
SQL> Create table my-restaurants (rname varchar2(15),
Foodtype varchar2(10), distance number(2), Lastvisit
varchar2(15), ilike varchar2(5));

Table created.
```

Question: 2

```
SQL> insert into my-restaurants values ('& rname',
'& foodtype', '& distance', '& Lastvisit', '& ilike');

Enter value for rname: apple_leaf
Enter value for foodtype: nonveg
Enter value for distance: 15
Enter value for Lastvisit: 01-Jan-2020
Enter value for ilike: 1

old 1: insert into my-restaurants values ('& rname',
'& foodtype', '& distance', '& Lastvisit', '& ilike')
new 1: insert into my-restaurants values ('apple_
leaf', 'nonveg', '15', '01-Jan-2020', '1')

1 row created.

SQL> /
```

Department of Data Science, Bishop Heber College Tiruchirappalli
NoSQL Database Management Lab

Lab1. Developing and Querying *MyRestaurants* Database

Objectives

In this lab, you will create a new table, insert tuples satisfying the constraints and perform query processing.

Tasks To Be Completed

Question1. Create a table called ***MyRestaurants*** with the following attributes:

- Name of the restaurant: a varchar field
- Type of food they make: a varchar field (food type: veg, nonveg, chinese)
- Distance (in minutes) from your house: an integer
- Date of your last visit: a varchar field, interpreted as date
- Whether you like it or not: an integer, interpreted as a Boolean

Question2. Insert at least five tuples using the SQL INSERT command seven (or more) times. You should insert at least one restaurant you liked, at least one restaurant you did not like, and at least one restaurant where you leave the iLike field NULL.

Sample Dataset:

name	foodtype	distance	lastvisit	ilike
apple_leaf	nonveg	15	01-Jan-2020	1
sowmyas	veg	18	20-Mar-2020	1
thinnappa	nonveg	25	20-Nov-2019	0
sribhavan	veg	18	20-Dec-2019	0
chinaworld	chinese	14	05-Mar-2020	1
littlechina	chinese	30	10-Mar-2020	0
munivilas	nonveg	20	05-Dec-2019	null
dosacorner	nonveg	10	05-Feb-2020	1

Question3. Write a SQL query that returns all restaurants in your table.

```
Select * From my_restaurants;
```

Question4. Now, experiment with a few output formats, using the SQL query you wrote for *Question3*.

- print the results in comma-separated form
- print the results in list form, delimited by " | "
- print the results in column form, and make each column have width 15

Question: 4

* SQL> Select Listagg(rname,',') within group (order by rname) Restaurant_name from my_restaurants;

RESTAURANT_NAME

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apple_leaf, chinaworld, dosacorner, littlechina, munividas, sowmyas, sribhavan, thinnappa.

* SQL> Select listagg(rname,'|') within group (order by rname) Restaurant_name from my_restaurants;

* SQL> Set numwidth 15;
SQL> Select * from my_restaurants;

RNAME	FOODTYPE	DISTANCE	LASTVISIT	ILIKE
apple_leaf	nonveg	15	01-Jan-2020	1
sowmyas	veg	18	20-Mar-2020	1
thinnappa	nonveg	25	20-NOV-2019	0

- for each of the formats above, try printing/not printing the column headers with the results

Question5. Modify your SQL query such that it prints "I liked it" or "I hated it" for each restaurant you liked or not. Note that you are not allowed to modify the table on disk. You should be able to answer this question using only a SELECT statement. A solution that creates and uses an extra table, however, will be accepted.

Question6. Write a SQL query that returns only the name and distance of all restaurants within and including 20 minutes of your house. The query should list the restaurants in alphabetical order of names.

```
SQL> Select rname, distance from my-restaurants
where distance <=20 order by rname asc;
```

Question7. Write a SQL query that returns the names of restaurants in descending order that makes Chinese foods.

```
SQL> Select rname from my-restaurants where
foodtype ='chinese' order by rname desc;
```

Question8. Write a SQL query that returns the names of restaurants in ascending order which you have visited in the past 2 months

```
Select * from my_restaurants where ilike =1 and
Last visit < Sysdate order by name asc;
```

Question9. Write a SQL query that returns all restaurants that you like, but have not visited since more than 3 months ago.

```
SQL> Select rname from my_restaurants where
ilike ='1' and Lastvisit <sysdate;
```

Question10. Write a SQL query that returns all restaurants names that are within and including 15 mins from your house where you like Chinese foods.

```
SQL> Select rname from my_restaurants where
distance <=15 and foodtype = 'chinese';

RNAME
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chinaworld
```