

DBMS LAB – 2

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DATE:- 17-08-2022

Question 1. [5 marks]

Create the following table: Customer

columnname datatype size

Cust_ID varchar2 5

name varchar2 30

city varchar2 15

state varchar2 15

pincode number 6

products varchar2 40

price number 10

Note: ID must be unique, names and products can be repeated.

1(a)- Insert the data into the table.

Cust_ID	name	city	state	pincode	products	price
C101	Alex William	Indore	Madhya pradesh	452013	chair	4000
C102	Alex William	Pune	Maharastra	652016	table	8000
C103	V.Iyer	Chennai	Tamil Nadu	752716	table	8001
C104	L.Laxmi	Chennai	Tamil Nadu	752717	doll	200
C105	Ravi Teja	Hyderabad	Telangana	252727	doll	250
C106	Raj Kumar	Delhi	Delhi	151127	cricket kit	5250
C107	Tuner Bond	Bhopal	Madhya Pradesh	451127	football kit	3250
C108	Nikhil Yadav	Chennai	Tamil Nadu	751127	football kit	6250
C109	John	Mumbai	Maharastra	651127	football kit	6255

1 (b) On the basis of above table answer the following Questionnaires:

1. Find out the names of all the customers (without duplicates).

```
mysql> select distinct name from Customer;
+-----+
| name          |
+-----+
| Alex William  |
| V.Iyer        |
| L.Laxmi       |
| Ravi Teja     |
| Raj Kumar     |
| Tuner Bond    |
| Nikhil Yadav  |
| John          |
+-----+
8 rows in set (0.01 sec)

mysql>
```

2. Retrieve the list of names and cities of all the customers.

```
mysql> select name,city from Customer;
+-----+-----+
| name          | city    |
+-----+-----+
| Alex William  | Indore  |
| Alex William  | Pune    |
| V.Iyer        | Chennai |
| L.Laxmi       | Chennai |
| Ravi Teja     | Hyderabad |
| Raj Kumar     | Delhi   |
| Tuner Bond    | Bhopal  |
| Nikhil Yadav  | Chennai |
| John          | Mumbai  |
+-----+-----+
9 rows in set (0.00 sec)
```

3. List the available products whose name begins with 'D'.

```
mysql> SELECT * FROM Customer Where products like 'd%';
```

Cust_ID	name	city	state	pincode	products	price
C104	L.Laxmi	Chennai	Tamil Nadu	752717	doll	200
C105	Ravi Teja	Hyderabad	Telangana	252727	doll	250

```
2 rows in set (0.00 sec)

mysql>
```

4. List all the clients who are in Chennai.

```
mysql> SELECT * FROM Customer Where city = 'Chennai';
```

Cust_ID	name	city	state	pincode	products	price
C103	V.Iyer	Chennai	Tamil Nadu	752716	table	8001
C104	L.Laxmi	Chennai	Tamil Nadu	752717	doll	200
C108	Nikhil Yadav	Chennai	Tamil Nadu	751127	football kit	6250

```
3 rows in set (0.00 sec)

mysql>
```

5. Display the information for clients with ID C108 and C104 (Assume Ids are present in the table).

```
mysql> SELECT * FROM Customer Where Cust_ID = 'C108' or Cust_ID= 'C104';
```

Cust_ID	name	city	state	pincode	products	price
C104	L.Laxmi	Chennai	Tamil Nadu	752717	doll	200
C108	Nikhil Yadav	Chennai	Tamil Nadu	751127	football kit	6250

```
2 rows in set (0.00 sec)

mysql> _
```

6. Find all the products whose sell price is greater than 5000.

```
mysql> SELECT * FROM Customer Where price > 5000;
```

Cust_ID	name	city	state	pincode	products	price
C102	Alex William	Pune	Maharashtra	652016	table	8000
C103	V.Iyer	Chennai	Tamil Nadu	752716	table	8001
C106	Raj Kumar	Delhi	Delhi	151127	cricket kit	5250
C108	Nikhil Yadav	Chennai	Tamil Nadu	751127	football kit	6250
C109	John	Mumbai	Maharashtra	651127	football kit	6255

```
5 rows in set (0.00 sec)

mysql> _
```

7. Find the list of all customer IDs who stay in city 'Hyderabad' or city 'pune' or 'Delhi'.

```
mysql> SELECT * FROM Customer Where city = 'Hyderabad' or city = 'Delhi' or city = 'Pune';
```

Cust_ID	name	city	state	pincode	products	price
C102	Alex William	Pune	Maharashtra	652016	table	8000
C105	Ravi Teja	Hyderabad	Telangana	252727	doll	250
C106	Raj Kumar	Delhi	Delhi	151127	cricket kit	5250

```
3 rows in set (0.00 sec)

mysql> _
```

8. Find the product whose selling price is greater than 2000 and less than or equal to 5000.

```
mysql> SELECT * FROM Customer Where price > 2000 and price <= 5000;
```

Cust_ID	name	city	state	pincode	products	price
C101	Alex William	Indore	Madhya pradesh	452013	chair	4000
C107	Tuner Bond	Bhopal	Madhya Pradesh	451127	football kit	3250

```
2 rows in set (0.00 sec)

mysql>
```

9. List the name, city and state of clients not in the state of 'Tamil Nadu'.

```
mysql> SELECT name,city,state FROM Customer Where not state = 'Tamil Nadu';
```

name	city	state
Alex William	Indore	Madhya pradesh
Alex William	Pune	Maharastra
Ravi Teja	Hyderabad	Telangana
Raj Kumar	Delhi	Delhi
Tuner Bond	Bhopal	Madhya Pradesh
Johney	Mumbai	Maharastra

```
6 rows in set (0.00 sec)

mysql> _
```

10. Modify customer name “John” as “Johney”.

```
mysql> update Customer
-> set name = 'Johney'
-> where Cust_ID='C109';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from Customer;
```

Cust_ID	name	city	state	pincode	products	price
C101	Alex William	Indore	Madhya pradesh	452013	chair	4000
C102	Alex William	Pune	Maharastra	652016	table	8000
C103	V.Iyer	Chennai	Tamil Nadu	752716	table	8001
C104	L.Laxmi	Chennai	Tamil Nadu	752717	doll	200
C105	Ravi Teja	Hyderabad	Telangana	252727	doll	250
C106	Raj Kumar	Delhi	Delhi	151127	cricket kit	5250
C107	Tuner Bond	Bhopal	Madhya Pradesh	451127	football kit	3250
C108	Nikhil Yadav	Chennai	Tamil Nadu	751127	football kit	6250
C109	Johney	Mumbai	Maharastra	651127	football kit	6255

```
9 rows in set (0.00 sec)

mysql> _
```

Question 2: [5 Marks]

1. Create following table into the database 'business'

1. employee (emp_no, emp_name, doj, ph_no, dept_name, designation, salary)

```
mysql> create table employee(  
  -> emp_no int,  
  -> emp_name varchar(30),  
  -> doj date,  
  -> ph_no bigint,  
  -> dept_name varchar(20),  
  -> designation varchar(20),  
  -> salary int);  
Query OK, 0 rows affected (0.02 sec)
```

2. Load data from the text file or insert the data into table
(ATTACHED SEPARATELY)

```
mysql> insert into employee  
  -> values(2399, 'Govind', '2019-03-1', 8346123423, 'Accounts', 'Typist', 4500, 'M');  
Query OK, 1 row affected (0.01 sec)  
  
mysql> insert into employee  
  -> values(4599, 'Dhanad', '2019-04-2', 8456123423, 'Accounts', 'Typist', 4000, 'M');  
Query OK, 1 row affected (0.00 sec)  
  
mysql> insert into employee  
  -> values(2399, 'Khurana', '2019-03-1', 9448903423, 'Accounts', 'CA', 14500, 'M');  
Query OK, 1 row affected (0.01 sec)  
  
mysql> insert into employee  
  -> values(4599, 'Suraj', '2019-04-2', 9426123423, 'Accounts', 'CA', 46000, 'M');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> select * from employee;  
+-----+-----+-----+-----+-----+-----+-----+-----+  
| emp_no | emp_name | doj | ph_no | dept_name | designation | salary | gender |  
+-----+-----+-----+-----+-----+-----+-----+-----+  
| 1234 | Sarala | 2020-01-02 | 9444123456 | Sales | HR | 70000 | F |  
| 3452 | Amogh | 2019-01-01 | 9464123456 | Sales | Sales manager | 72000 | M |  
| 4312 | Qasim | 2019-04-01 | 9444123423 | Sales | Sales representative | 7000 | M |  
| 4112 | Swathi | 2019-04-23 | NULL | Sales | Typist | 3300 | F |  
| 6693 | Manoj | 2019-03-01 | 9444125357 | HR | Marketing | 17000 | M |  
| 4345 | Devi kumar | 2020-01-01 | 9448563456 | HR | HR | 70000 | F |  
| 5744 | Hari dev | 2019-03-01 | 9464893456 | Marketing | Receptionist | 2000 | M |  
| 7899 | William Jane | 2019-04-12 | NULL | Marketing | Typist | 4000 | F |  
| 3451 | Dennis | 2019-11-01 | 8244125357 | Marketing | sales representative | 7000 | M |  
| 2399 | Govind | 2019-03-01 | 8346123423 | Accounts | Typist | 4500 | M |  
| 4599 | Dhanad | 2019-04-02 | 8456123423 | Accounts | Typist | 4000 | M |  
| 2399 | Khurana | 2019-03-01 | 9448903423 | Accounts | CA | 14500 | M |  
| 4599 | Suraj | 2019-04-02 | 9426123423 | Accounts | CA | 46000 | M |  
+-----+-----+-----+-----+-----+-----+-----+-----+  
13 rows in set (0.00 sec)
```

3. Add 3 to 5 rows in the employee, following below conditions
 - a. Dept_names: 'sales', 'HR', 'Marketing', 'Accounts'
 - b. Designation: 'Sales manager', 'HR', 'sales representative', 'CA', 'Typist', 'Receptionist'

```
mysql> insert into employee
-> VALUES(1564,'Saroja','2020-01-22',9467123456,'Sales','HR',50000,'F'),(3452,'Rayudu','2019-01-21',9464127486,'Sales','Sales manager',78000,'M'),(4382,'Avinash','2019-09-01',9444125555,'Sales','Sales representative',17000,'M'),(4192,'Swetha','2019-04-27',NULL,'Sales','Typist',5300,'F'),(6699,'Manobala','2019-03-07',9444125777,'HR','Marketing',18000,'F');
Query OK, 5 rows affected (0.01 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

4. Display all the records from the above table

```
mysql> select *from employee;
+-----+-----+-----+-----+-----+-----+-----+-----+
| emp_no | emp_name | doj | ph_no | dept_name | designation | salary | gender |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1234 | Sarala | 2020-01-02 | 9444123456 | Sales | HR | 70000 | F |
| 3452 | Amogh | 2019-01-01 | 9464123456 | Sales | Sales manager | 72000 | M |
| 4312 | Qasim | 2019-04-01 | 9444123423 | Sales | Sales representative | 7000 | M |
| 4112 | Swathi | 2019-04-23 | NULL | Sales | Typist | 3300 | F |
| 6693 | Manoj | 2019-03-01 | 9444125357 | HR | Marketing | 17000 | M |
| 4345 | Devi kumar | 2020-01-01 | 9448563456 | HR | HR | 70000 | F |
| 5744 | Hari dev | 2019-03-01 | 9464893456 | Marketing | Receptionist | 2000 | M |
| 7899 | William Jane | 2019-04-12 | NULL | Marketing | Typist | 4000 | F |
| 3451 | Dennis | 2019-11-01 | 8244125357 | Marketing | sales representative | 7000 | M |
| 2399 | Govind | 2019-03-01 | 8346123423 | Accounts | Typist | 4500 | M |
| 4599 | Dhanad | 2019-04-02 | 8456123423 | Accounts | Typist | 4000 | M |
| 2399 | Khurana | 2019-03-01 | 9448903423 | Accounts | CA | 14500 | M |
| 4599 | Suraj | 2019-04-02 | 9426123423 | Accounts | CA | 46000 | M |
| 1564 | Saroja | 2020-01-22 | 9467123456 | Sales | HR | 50000 | F |
| 3452 | Rayudu | 2019-01-21 | 9464127486 | Sales | Sales manager | 78000 | M |
| 4382 | Avinash | 2019-09-01 | 9444125555 | Sales | Sales representative | 17000 | M |
| 4192 | Swetha | 2019-04-27 | NULL | Sales | Typist | 5300 | F |
| 6699 | Manobala | 2019-03-07 | 9444125777 | HR | Marketing | 18000 | F |
+-----+-----+-----+-----+-----+-----+-----+-----+
18 rows in set (0.00 sec)

mysql> _
```

5. Display the empno and name of all the employees from department name ending with 's'

```
mysql> select emp_no,emp_name from employee
-> where dept_name like '%s';
```

emp_no	emp_name
1234	Sarala
3452	Amogh
4312	Qasim
4112	Swathi
2399	Govind
4599	Dhanad
2399	Khurana
4599	Suraj
1564	Saroja
3452	Rayudu
4382	Avinash
4192	Swetha

```
12 rows in set (0.00 sec)

mysql> _
```

6. Display the empno and name of all employees whose salary is between 2000 and 5000

```
mysql> select emp_no,emp_name from employee
-> where salary > 2000 and salary < 5000;
```

emp_no	emp_name
4112	Swathi
7899	William Jane
2399	Govind
4599	Dhanad

```
4 rows in set (0.00 sec)
```


7. Display all designations starting with 'sales'

```
mysql> select designation from employee
      -> where designation like 'Sales%';
+-----+
| designation |
+-----+
| Sales manager |
| Sales representative |
| sales representative |
| Sales manager |
| Sales representative |
+-----+
5 rows in set (0.00 sec)

mysql>
```

8. Change the salary of employees to 25000 whose designation is 'Typist'

```
mysql> update employee
-> set salary = 25000
-> where designation = 'Typist';
Query OK, 5 rows affected (0.01 sec)
Rows matched: 5 Changed: 5 Warnings: 0

mysql> select * from employee;
```

emp_no	emp_name	doj	ph_no	dept_name	designation	salary	gender
1234	Sarala	2020-01-02	9444123456	Sales	HR	70000	F
3452	Amogh	2019-01-01	9464123456	Sales	Sales manager	72000	M
4312	Qasim	2019-04-01	9444123423	Sales	Sales representative	7000	M
4112	Swathi	2019-04-23	NULL	Sales	Typist	25000	F
6693	Manoj	2019-03-01	9444125357	HR	Marketing	17000	M
4345	Devi kumar	2020-01-01	9448563456	HR	HR	70000	F
5744	Hari dev	2019-03-01	9464893456	Marketing	Receptionist	2000	M
7899	William Jane	2019-04-12	NULL	Marketing	Typist	25000	F
3451	Dennis	2019-11-01	8244125357	Marketing	sales representative	7000	M
2399	Govind	2019-03-01	8346123423	Accounts	Typist	25000	M
4599	Dhanad	2019-04-02	8456123423	Accounts	Typist	25000	M
2399	Khurana	2019-03-01	9448903423	Accounts	CA	14500	M
4599	Suraj	2019-04-02	9426123423	Accounts	CA	46000	M
1564	Saroja	2020-01-22	9467123456	Sales	HR	50000	F
3452	Rayudu	2019-01-21	9464127486	Sales	Sales manager	78000	M
4382	Avinash	2019-09-01	9444125555	Sales	Sales representative	17000	M
4192	Swetha	2019-04-27	NULL	Sales	Typist	25000	F
6699	Manobala	2019-03-07	9444125777	HR	Marketing	18000	F

```
18 rows in set (0.00 sec)

mysql>
```

9. Change the mobile no of employee named 'john'

```
mysql> update employee
-> set ph_no = 7981123450
-> where emp_name = 'Qasim';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from employee;
```

emp_no	emp_name	doj	ph_no	dept_name	designation	salary	gender
1234	Sarala	2020-01-02	9444123456	Sales	HR	70000	F
3452	Amogh	2019-01-01	9464123456	Sales	Sales manager	72000	M
4312	Qasim	2019-04-01	7981123450	Sales	Sales representative	7000	M
4112	Swathi	2019-04-23	NULL	Sales	Typist	25000	F
6693	Manoj	2019-03-01	9444125357	HR	Marketing	17000	M
4345	Devi kumar	2020-01-01	9448563456	HR	HR	70000	F
5744	Hari dev	2019-03-01	9464893456	Marketing	Receptionist	2000	M
7899	William Jane	2019-04-12	NULL	Marketing	Typist	25000	F
3451	Dennis	2019-11-01	8244125357	Marketing	sales representative	7000	M
2399	Govind	2019-03-01	8346123423	Accounts	Typist	25000	M
4599	Dhanad	2019-04-02	8456123423	Accounts	Typist	25000	M
2399	Khurana	2019-03-01	9448903423	Accounts	CA	14500	M
4599	Suraj	2019-04-02	9426123423	Accounts	CA	46000	M
1564	Saroja	2020-01-22	9467123456	Sales	HR	50000	F
3452	Rayudu	2019-01-21	9464127486	Sales	Sales manager	78000	M
4382	Avinash	2019-09-01	9444125555	Sales	Sales representative	17000	M
4192	Swetha	2019-04-27	NULL	Sales	Typist	25000	F
6699	Manobala	2019-03-07	9444125777	HR	Marketing	18000	F

```
18 rows in set (0.00 sec)

mysql>
```

10. Give all the receptionists 10% hike

```
mysql> update employee
-> set salary = salary + (salary/10)
-> where designation = 'Receptionist';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from employee;
```

emp_no	emp_name	doj	ph_no	dept_name	designation	salary	gender
1234	Sarala	2020-01-02	9444123456	Sales	HR	70000	F
3452	Amogh	2019-01-01	9464123456	Sales	Sales manager	72000	M
4312	Qasim	2019-04-01	7981123450	Sales	Sales representative	7000	M
4112	Swathi	2019-04-23	NULL	Sales	Typist	25000	F
6693	Manoj	2019-03-01	9444125357	HR	Marketing	17000	M
4345	Devi kumar	2020-01-01	9448563456	HR	HR	70000	F
5744	Hari dev	2019-03-01	9464893456	Marketing	Receptionist	2200	M
7899	William Jane	2019-04-12	NULL	Marketing	Typist	25000	F
3451	Dennis	2019-11-01	8244125357	Marketing	sales representative	7000	M
2399	Govind	2019-03-01	8346123423	Accounts	Typist	25000	M
4599	Dhanad	2019-04-02	8456123423	Accounts	Typist	25000	M
2399	Khurana	2019-03-01	9448903423	Accounts	CA	14500	M
4599	Suraj	2019-04-02	9426123423	Accounts	CA	46000	M
1564	Saroja	2020-01-22	9467123456	Sales	HR	50000	F
3452	Rayudu	2019-01-21	9464127486	Sales	Sales manager	78000	M
4382	Avinash	2019-09-01	9444125555	Sales	Sales representative	17000	M
4192	Swetha	2019-04-27	NULL	Sales	Typist	25000	F
6699	Manobala	2019-03-07	9444125777	HR	Marketing	18000	F

```
18 rows in set (0.00 sec)

mysql>
```

11. Find the employees whose mobile number is not mentioned

```
mysql> select * from employee
-> where ph_no is NULL;
```

emp_no	emp_name	doj	ph_no	dept_name	designation	salary	gender
4112	Swathi	2019-04-23	NULL	Sales	Typist	25000	F
7899	William Jane	2019-04-12	NULL	Marketing	Typist	25000	F
4192	Swetha	2019-04-27	NULL	Sales	Typist	25000	F

```
3 rows in set (0.00 sec)

mysql>
```

12. Delete all employees whose salaries are greater than Rs.7000

```
mysql> select * from employee;
```

emp_no	emp_name	doj	ph_no	dept_name	designation	salary	gender
4312	Qasim	2019-04-01	7981123450	Sales	Sales representative	7000	M
5744	Hari dev	2019-03-01	9464893456	Marketing	Receptionist	2200	M
3451	Dennis	2019-11-01	8244125357	Marketing	sales representative	7000	M

```
3 rows in set (0.00 sec)

mysql> _
```

13. Truncate the table

```
mysql> truncate table employee;
Query OK, 0 rows affected (0.04 sec)

mysql> select * from employee;
Empty set (0.00 sec)
```

14. Display the table structure

```
mysql> describe employee;
```

Field	Type	Null	Key	Default	Extra
emp_no	int	YES		NULL	
emp_name	varchar(30)	YES		NULL	
doj	date	YES		NULL	
ph_no	bigint	YES		NULL	
dept_name	varchar(20)	YES		NULL	
designation	varchar(20)	YES		NULL	
salary	int	YES		NULL	
gender	varchar(2)	YES		NULL	

```
8 rows in set (0.04 sec)
```

```
mysql>
```

← THE END →