

DBMS LAB-02

YASH GUPTA

S20200010234

• QUESTION-1

Q1. 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.

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

1. Find out the names of all the clients (without duplicates).
2. Retrieve the list of names and cities of all the customers.
3. List the available products whose name begin with 't'.
4. List all the clients who are in Chennai.
5. Display the information for clients with ID C109 and C105 (Assume Ids are present in the table).
6. Find all the products whose sell price is greater than 4000.
7. Find the list of all customer IDs who stay in city 'Hyderabad' or city 'pune' or 'Delhi'.
8. Find the product whose selling price is greater than 2000 and less than or equal to 5000.
9. List the name, city and state of clients not in the state of 'Maharashtra'.
10. Modify customer name "John" as "Johney".

SOLUTION 1(a)

```
mysql> create database mydatabases;  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> use mydatabases;  
Database changed
```

```
mysql> create table Customer(  
  -> Cust_ID varchar(5),  
  -> Name varchar(30),  
  -> City varchar(15),  
  -> State varchar(15),  
  -> Pincode numeric(6),  
  -> Products varchar(40),  
  -> Price numeric(10));  
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> show tables;  
+-----+  
| Tables_in_mydatabases |  
+-----+  
| customer               |  
+-----+  
1 row in set (0.04 sec)
```

```
mysql> insert into Customer values('AE2','Aritro','Indore','MP','451010','toy','45');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into Customer values('C109','John','Chennai','Tamil Nadu','451010','clothes','4500');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into Customer values('C105','Alex','Mumbai','Maharashtra','651010','car','45000');  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into Customer values('C189','Satya','Chennai','Tamil Nadu','451010','keyboard','2500');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into Customer values('C333','Yash','Agra','UP','282006','Camera','9999');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into Customer values('C334','Samyak','Pune','Maharashtra','432087','chocolate','999');  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into Customer values('C234','Madhur','Delhi','Delhi','432222','bed','9993');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into Customer values('C234','Shardul','Hyderabad','Telagana','431222','water bottle','500');  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into Customer values('C114','Shobhit','Kanpur','UP','222334','Time clock','3999');  
Query OK, 1 row affected (0.00 sec)
```

SOLUTION 1(b)

```
mysql> select * from customer;
```

Cust_ID	Name	City	State	Pincode	Products	Price
AE2	Aritro	Indore	MP	451010	toy	45
C109	John	Chennai	Tamil Nadu	451010	clothes	4500
C105	Alex	Mumbai	Maharashtra	651010	car	45000
C189	Satya	Chennai	Tamil Nadu	451010	keyboard	2500
C333	Yash	Agra	UP	282006	Camera	9999
C334	Samyak	Pune	Maharashtra	432087	chocolate	999
C234	Madhur	Delhi	Delhi	432222	bed	9993
C234	Shardul	Hyderabad	Telagana	431222	water bottle	500
C114	Shobhit	Kanpur	UP	222334	Time clock	3999

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

```
mysql> insert into Customer values('C234','Shardul','Latur','Maharashtra','411122','water bottle','2500');
Query OK, 1 row affected (0.00 sec)
```

```
mysql> select * from customer;
```

Cust_ID	Name	City	State	Pincode	Products	Price
AE2	Aritro	Indore	MP	451010	toy	45
C109	John	Chennai	Tamil Nadu	451010	clothes	4500
C105	Alex	Mumbai	Maharashtra	651010	car	45000
C189	Satya	Chennai	Tamil Nadu	451010	keyboard	2500
C333	Yash	Agra	UP	282006	Camera	9999
C334	Samyak	Pune	Maharashtra	432087	chocolate	999
C234	Madhur	Delhi	Delhi	432222	bed	9993
C234	Shardul	Hyderabad	Telagana	431222	water bottle	500
C114	Shobhit	Kanpur	UP	222334	Time clock	3999
C234	Shardul	Latur	Maharashtra	411122	water bottle	2500

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

```
mysql> update customer set Cust_ID='C101' where City='Latur';
```

```
Query OK, 1 row affected (0.00 sec)
```

```
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> select * from customer;
```

Cust_ID	Name	City	State	Pincode	Products	Price
AE2	Aritro	Indore	MP	451010	toy	45
C109	John	Chennai	Tamil Nadu	451010	clothes	4500
C105	Alex	Mumbai	Maharashtra	651010	car	45000
C189	Satya	Chennai	Tamil Nadu	451010	keyboard	2500
C333	Yash	Agra	UP	282006	Camera	9999
C334	Samyak	Pune	Maharashtra	432087	chocolate	999
C234	Madhur	Delhi	Delhi	432222	bed	9993
C234	Shardul	Hyderabad	Telagana	431222	water bottle	500
C114	Shobhit	Kanpur	UP	222334	Time clock	3999
C101	Shardul	Latur	Maharashtra	411122	water bottle	2500

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

```
mysql> ALTER TABLE customer RENAME COLUMN Pincode TO Pincode;
```

```
Query OK, 0 rows affected (0.04 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> select * from customer;
```

Cust_ID	Name	City	State	Pincode	Products	Price
AE2	Aritro	Indore	MP	451010	toy	45
C109	John	Chennai	Tamil Nadu	451010	clothes	4500
C105	Alex	Mumbai	Maharashtra	651010	car	45000
C189	Satya	Chennai	Tamil Nadu	451010	keyboard	2500
C333	Yash	Agra	UP	282006	Camera	9999
C334	Samyak	Pune	Maharashtra	432087	chocolate	999
C234	Madhur	Delhi	Delhi	432222	bed	9993
C234	Shardul	Hyderabad	Telagana	431222	water bottle	500
C114	Shobhit	Kanpur	UP	222334	Time clock	3999
C101	Shardul	Latur	Maharashtra	411122	water bottle	2500

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

```
mysql> select distinct Name from customer
```

```
-> ;
```

Name
Aritro
John
Alex
Satya
Yash
Samyak
Madhur
Shardul
Shobhit

```
9 rows in set (0.01 sec)
```

```
mysql> select Name, City from customer
```

```
-> ;
```

Name	City
Aritro	Indore
John	Chennai
Alex	Mumbai
Satya	Chennai
Yash	Agra
Samyak	Pune
Madhur	Delhi
Shardul	Hyderabad
Shobhit	Kanpur
Shardul	Latur


```
mysql> select Products from customer
-> where Products like 't%';
```

```
+-----+
| Products |
+-----+
| toy      |
| Time clock |
+-----+
```

2 rows in set (0.00 sec)

```
mysql> select * from customer
-> where City='Chennai';
```

```
+-----+-----+-----+-----+-----+-----+-----+
| Cust_ID | Name | City   | State   | Pincode | Products | Price |
+-----+-----+-----+-----+-----+-----+-----+
| C109    | John | Chennai | Tamil Nadu | 451010 | clothes | 4500 |
| C189    | Satya | Chennai | Tamil Nadu | 451010 | keyboard | 2500 |
+-----+-----+-----+-----+-----+-----+-----+
```

2 rows in set (0.00 sec)

```
mysql> select * from customer
-> where Cust_ID in('C109','C105');
```

```
+-----+-----+-----+-----+-----+-----+-----+
| Cust_ID | Name | City   | State   | Pincode | Products | Price |
+-----+-----+-----+-----+-----+-----+-----+
| C109    | John | Chennai | Tamil Nadu | 451010 | clothes | 4500 |
| C105    | Alex | Mumbai | Maharashtra | 651010 | car      | 45000 |
+-----+-----+-----+-----+-----+-----+-----+
```

2 rows in set (0.00 sec)

```
mysql> select Products from customer
-> where Price>4000;
```

```
+-----+
| Products |
+-----+
| clothes  |
| car      |
| Camera   |
| bed      |
+-----+
```

4 rows in set (0.00 sec)

```
mysql> select Cust_ID from customer
-> where City in('Delhi','Hyderabad','Pune');
```

```
+-----+
| Cust_ID |
+-----+
| C334    |
| C234    |
| C234    |
+-----+
```

3 rows in set (0.00 sec)

```
mysql> select Name, City, State from customer
-> where state not in ('Maharastra');
```

```
+-----+-----+-----+
| Name   | City   | State   |
+-----+-----+-----+
| Aritro | Indore | MP      |
| John   | Chennai | Tamil Nadu |
| Alex   | Mumbai | Maharashtra |
| Satya  | Chennai | Tamil Nadu |
| Yash   | Agra   | UP      |
| Madhur | Delhi  | Delhi   |
| Shardul | Hyderabad | Telagana |
| Shobhit | Kanpur | UP      |
+-----+-----+-----+
```

8 rows in set (0.00 sec)

```
mysql> select Product from customer
-> where Price>2000 and Price<=5000;
ERROR 1054 (42S22): Unknown column 'Product' in 'field list'
```

```
mysql> select Products from customer
-> where Price>2000 and Price<=5000;
```

```
+-----+
| Products |
+-----+
| clothes  |
| keyboard |
| Time clock |
| water bottle |
+-----+
```

4 rows in set (0.00 sec)

```
mysql> update customer
-> set Name='Johney'
-> where Name='John';
```

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 |
+-----+-----+-----+-----+-----+-----+
| AE2     | Aritro | Indore | MP      | 451010 | toy      | 45    |
| C109    | Johney | Chennai | Tamil Nadu | 451010 | clothes  | 4500  |
| C105    | Alex   | Mumbai | Maharashtra | 651010 | car      | 45000 |
| C189    | Satya  | Chennai | Tamil Nadu | 451010 | keyboard | 2500  |
| C333    | Yash   | Agra   | UP      | 282006 | Camera   | 9999  |
| C334    | Samyak | Pune   | Maharastra | 432087 | chocolate | 999   |
| C234    | Madhur | Delhi  | Delhi   | 432222 | bed      | 9993  |
| C234    | Shardul | Hyderabad | Telagana | 431222 | water bottle | 500   |
| C114    | Shobhit | Kanpur | UP      | 222334 | Time clock | 3999  |
| C101    | Shardul | Latur  | Maharastra | 411122 | water bottle | 2500  |
+-----+-----+-----+-----+-----+-----+
```

10 rows in set (0.00 sec)

```
mysql> _
```

• QUESTION-2

Q2:

1. Create following table in the database 'business'
 1. employee (emp_no, emp_name, doj, ph_no, dept_name, designation, salary)
2. Load data from the text file
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'
4. Display all the records from the above table
5. Display the empno and name of all the employees from department name ending with 's'
6. Display the empno and name of all employees whose salary is between 2000 and 5000
7. Display all designations starting with 'sales'
8. Change the salary of employees to 25000 whose designation is 'Typist'
9. Change the mobile no of employee named 'john'
10. Give all the receptionists 10% hike
11. Find the employees whose mobile number is not mentioned
12. Delete all employees whose salaries are greater than Rs.7000
13. Truncate the table
14. Display the table structure

SOLUTION 2

```
mysql>
mysql> use mydatabases
Database changed
mysql> create table buisness(
-> emp_no numeric(5),
-> emp_name varchar(30),
-> doj Date,
-> ph_no numeric(10),
-> dept_name varchar(30),
-> designation varchar(30),
-> salary numeric(10));
Query OK, 0 rows affected (0.12 sec)

mysql>
mysql> insert into buisness values(11765,'Madhur','2015-08-07','8563777123','Typist','Accounts',4500);
Query OK, 1 row affected (0.02 sec)

mysql> insert into buisness values(12763,'Satya','2018-01-04','8523455523','CA','Accounts',45000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into buisness values(12233,'Yash','2021-01-03','9123455777','HR','HR',9000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into buisness values(15534,'Alex','2002-10-03','9166553377','sales manager','marketing',1000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into buisness values(15534,'Vanshika','2018-10-16','9749827647','receptionist','sales',2500);
Query OK, 1 row affected (0.01 sec)

mysql> alter table buisness rename column dept_name to designations;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> alter table buisness rename column designation to dept_name;
Query OK, 0 rows affected (0.02 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select * from buisness;
```

emp_no	emp_name	doj	ph_no	designations	dept_name	salary
11765	Madhur	2015-08-07	8563777123	Typist	Accounts	4500
12763	Satya	2018-01-04	8523455523	CA	Accounts	45000
12233	Yash	2021-01-03	9123455777	HR	HR	9000
15534	Alex	2002-10-03	9166553377	sales manager	marketing	1000
15534	Vanshika	2018-10-16	9749827647	receptionist	sales	2500

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



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

emp_no	emp_name
11765	Madhur
12763	Satya
15534	Vanshika

3 rows in set (0.00 sec)

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

emp_no	emp_name
11765	Madhur
15534	Vanshika

2 rows in set (0.00 sec)

```
mysql> update buisness set salary=25000
-> where designations = 'typist';
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> select * from buisness;
```

emp_no	emp_name	doj	ph_no	designations	dept_name	salary
11765	Madhur	2015-08-07	8563777123	Typist	Accounts	25000
12763	Satya	2018-01-04	8523455523	CA	Accounts	45000
12233	Yash	2021-01-03	9123455777	HR	HR	9000
15534	Alex	2002-10-03	9166553377	sales manager	marketing	1000
15534	Vanshika	2018-10-16	9749827647	receptionist	sales	2500

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

```
mysql> update buisness set ph_no='9128874321'  
-> where emp_name='alex';
```

```
Query OK, 1 row affected (0.00 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from buisness;
```

emp_no	emp_name	doj	ph_no	designations	dept_name	salary
11765	Madhur	2015-08-07	8563777123	Typist	Accounts	25000
12763	Satya	2018-01-04	8523455523	CA	Accounts	45000
12233	Yash	2021-01-03	9123455777	HR	HR	9000
15534	Alex	2002-10-03	9128874321	sales manager	marketing	1000
15534	Vanshika	2018-10-16	9749827647	receptionist	sales	2500

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

```
mysql> update buisness set salary=salary+salary/10  
-> where designations ='receptionist';
```

```
Query OK, 1 row affected (0.01 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from buisness;
```

emp_no	emp_name	doj	ph_no	designations	dept_name	salary
11765	Madhur	2015-08-07	8563777123	Typist	Accounts	25000
12763	Satya	2018-01-04	8523455523	CA	Accounts	45000
12233	Yash	2021-01-03	9123455777	HR	HR	9000
15534	Alex	2002-10-03	9128874321	sales manager	marketing	1000
15534	Vanshika	2018-10-16	9749827647	receptionist	sales	2750

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

```
mysql> select * from buisness;
```

emp_no	emp_name	doj	ph_no	designations	dept_name	salary
11765	Madhur	2015-08-07	8563777123	Typist	Accounts	25000
12763	Satya	2018-01-04	8523455523	CA	Accounts	45000
12233	Yash	2021-01-03	9123455777	HR	HR	9000
15534	Alex	2002-10-03	9128874321	sales manager	marketing	1000
15534	Vanshika	2018-10-16	9749827647	receptionist	sales	2750

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

```
mysql> select * from buisness
```

```
-> where (ph_no is NULL);
```

```
Empty set (0.00 sec)
```

```
mysql> delete from buisness
```

```
-> where salary>7000;
```

```
Query OK, 3 rows affected (0.00 sec)
```

```
mysql> select * from buisness;
```

emp_no	emp_name	doj	ph_no	designations	dept_name	salary
15534	Alex	2002-10-03	9128874321	sales manager	marketing	1000
15534	Vanshika	2018-10-16	9749827647	receptionist	sales	2750

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

```
mysql> truncate table buisness;
```

```
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> select * from buisness;
```

```
Empty set (0.01 sec)
```

```
mysql> describe buisness;
```

Field	Type	Null	Key	Default	Extra
emp_no	decimal(5,0)	YES		NULL	
emp_name	varchar(30)	YES		NULL	
doj	date	YES		NULL	
ph_no	decimal(10,0)	YES		NULL	
designations	varchar(30)	YES		NULL	
dept_name	varchar(30)	YES		NULL	
salary	decimal(10,0)	YES		NULL	

```
7 rows in set (0.02 sec)
```

THANK YOU