

## Experiment No. 02

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**Title:** To write queries for create table, alter table, drop table& column and datatype.

**Name:** Rahulkumar Varma

**Class:** TE CSE

**Batch:** T1

**Roll No:** 3020

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Enter password: \*\*\*\*

mysql> create database company;

Query OK, 1 row affected (0.17 sec)

mysql> use company;

Database changed

mysql> create table employee(emp\_id int,name char,department char,salary int,age int,city char);

Query OK, 0 rows affected (0.66 sec)

mysql> desc employee;

Field	Type	Null	Key	Default	Extra
emp_id	int	YES		NULL	
name	char(1)	YES		NULL	
department	char(1)	YES		NULL	
salary	int	YES		NULL	
age	int	YES		NULL	
city	char(1)	YES		NULL	

6 rows in set (0.13 sec)

```
mysql> alter table employee modify name char(20) not null;
```

```
Query OK, 0 rows affected (1.19 sec)
```

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

```
mysql> alter table employee modify department char(20) not null;
```

```
Query OK, 0 rows affected (1.42 sec)
```

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

```
mysql> alter table employee modify city char(20) not null;
```

```
Query OK, 0 rows affected (1.50 sec)
```

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

```
mysql> alter table employee add primary key(emp_id);
```

```
Query OK, 0 rows affected (0.99 sec)
```

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

```
mysql> insert into employee values(1,"ABC","manager",30000,21,"karad");
```

```
Query OK, 1 row affected (0.15 sec)
```

```
mysql> insert into employee values(2,"PQR","ceo",50000,20,"satara");
```

```
Query OK, 1 row affected (0.10 sec)
```

```
mysql> insert into employee values(3,"XYZ","worker",23500,22,"pune");
```

```
Query OK, 1 row affected (0.06 sec)
```

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

```
+-----+-----+-----+-----+-----+-----+
```

emp_id	name	department	salary	age	city
--------	------	------------	--------	-----	------

1	ABC	manager	30000	21	karad
---	-----	---------	-------	----	-------

2	PQR	ceo	50000	20	satara
---	-----	-----	-------	----	--------

3	XYZ	worker	23500	22	pune
---	-----	--------	-------	----	------

3	XYZ	worker	23500	22	pune
---	-----	--------	-------	----	------

3	XYZ	worker	23500	22	pune
---	-----	--------	-------	----	------

3 rows in set (0.03 sec)

```
mysql> insert into employee values(4,"sham","encharge",290000,42,"mumbai")
```

```
-> ;
```

Query OK, 1 row affected (0.04 sec)

```
mysql> insert into employee values(5,"ram","assistent manager ",29000,32,"kolhapur");
```

Query OK, 1 row affected (0.07 sec)

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

1	ABC	manager	30000	21	karad
---	-----	---------	-------	----	-------

2	PQR	ceo	50000	20	satara
---	-----	-----	-------	----	--------

3	XYZ	worker	23500	22	pune
---	-----	--------	-------	----	------

4	sham	encharge	290000	42	mumbai
---	------	----------	--------	----	--------

5	ram	assistent manager	29000	32	kolhapur
---	-----	-------------------	-------	----	----------

5	ram	assistent manager	29000	32	kolhapur
---	-----	-------------------	-------	----	----------

5	ram	assistent manager	29000	32	kolhapur
---	-----	-------------------	-------	----	----------

5	ram	assistent manager	29000	32	kolhapur
---	-----	-------------------	-------	----	----------

5	ram	assistent manager	29000	32	kolhapur
---	-----	-------------------	-------	----	----------

5 rows in set (0.00 sec)

```
mysql> select * from employee where emp_id in(select emp_id from employee where salary<30000);
```

emp_id	name	department	salary	age	city
3	XYZ	worker	23500	22	pune
5	ram	assistant manager	29000	32	kolhapur

2 rows in set (0.08 sec)

### Experiment No. 03

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**Title:** Grouping data, Aggregate function, oracle function.

**Name:** Rahulkumar Varma

**Class:** TE CSE

**Batch:** T1

**Roll No:** 3020

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Table name: pl\_sql

ID	NAME	MOBILE_NO
3030	Prasanna nikam	987654321
3020	Rahul varma	987654321
3011	Shivlal yadav	987654321

- Mysql group by clause using aggregate Count function.

Select NAME, count(\*) from pl\_sql group by NAME;

NAME	COUNT(*)
Prasanna nikam	1
Rahul varma	1
Shivlal yadav	1

- Mysql group by clause using Sum function

Select NAME, Sum(ID) As "Total sum of ID" from pl\_sql group by NAME;

NAME	Total sum of ID
Prasanna nikam	6060
Rahul varma	6040
Shivlal yadav	6022

- Mysql group by clause using Avg function

Select NAME, Avg(ID) As "Average of ID" from pl\_sql group by NAME;

NAME	Average of ID
Prasanna nikam	3030
Rahu varma	3020
Shivlal yadav	3011

## Experiment No. 04

\*\*\*\*\*

**Title:** Sub-queries, Set-Operations, Joins.

**Name:** Rahulkumar Varma

**Class:** TE CSE

**Batch:** T1

**Roll No:** 3020

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### Sub-queries:

```
mysql> create table employee_1(emp_id int,name char,department char,salary int,age int,city char);
```

Query OK, 0 rows affected (0.64 sec)

```
mysql> alter table employee_1 add primary key(emp_id);
```

Query OK, 0 rows affected (0.71 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> alter table employee_1 modify city char(20) not null;
```

Query OK, 0 rows affected (1.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> alter table employee_1 modify name char(20) not null;
```

Query OK, 0 rows affected (0.45 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> alter table employee_1 modify department char(20) not null;
```

Query OK, 0 rows affected (0.41 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> insert into employee_1 select * from employee where emp_id in(select emp_id from employee where age>20);
```

Query OK, 4 rows affected (0.05 sec)

Records: 4 Duplicates: 0 Warnings: 0

```
mysql> select * from employee_1;
```

emp_id	name	department	salary	age	city
11	ABC	manager	30000	21	karad
13	XYZ	worker	23500	22	pune
14	sham	encharge	2900000	42	mumbai
15	ram	assistent manager	29000	32	kolhapur

4 rows in set (0.00 sec)

```
mysql> update employee set salary=salary*10 where age in(select age from employee_1 where age>30);
```

Query OK, 2 rows affected (0.09 sec)

Rows matched: 2 Changed: 2 Warnings: 0

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

emp_id	name	department	salary	age	city
11	ABC	manager	30000	21	karad
12	PQR	ceo	50000	20	satara
13	XYZ	worker	23500	22	pune
14	sham	encharge	2900000	42	mumbai

```
| 15 | ram | assistant manager | 290000 | 32 | kolhapur |
```

```
+-----+-----+-----+-----+-----+-----+
```

5 rows in set (0.00 sec)

```
mysql> delete from employee_1 where salary in(select age from employee where age>=32);
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> select * from employee_1;
```

```
+-----+-----+-----+-----+-----+-----+
```

```
| emp_id | name | department | salary | age | city |
```

```
+-----+-----+-----+-----+-----+-----+
```

```
| 11 | ABC | manager | 30000 | 21 | karad |
```

```
| 13 | XYZ | worker | 23500 | 22 | pune |
```

```
| 14 | sham | encharge | 290000 | 42 | mumbai |
```

```
| 15 | ram | assistant manager | 29000 | 32 | kolhapur |
```

```
+-----+-----+-----+-----+-----+-----+
```

4 rows in set (0.00 sec)

```
mysql> delete from employee_1 where salary in(select salary from employee where salary>=30000);
```

Query OK, 2 rows affected (0.09 sec)

```
mysql> select * from employee_1;
```

```
+-----+-----+-----+-----+-----+-----+
```

```
| emp_id | name | department | salary | age | city |
```

```
+-----+-----+-----+-----+-----+-----+
```

```
| 13 | XYZ | worker | 23500 | 22 | pune |
```



	15		ram		assistent manager		29000		32		kolhapur	
--	----	--	-----	--	-------------------	--	-------	--	----	--	----------	--

+	-----	+	-----	+	-----	+	-----	+	-----	+	-----	+
---	-------	---	-------	---	-------	---	-------	---	-------	---	-------	---

2 rows in set (0.00 sec)

## Set-Operations:

mysql> select \* from employee union select \* from employee\_1;

+	-----	+	-----	+	-----	+	-----	+	-----	+	-----	+
---	-------	---	-------	---	-------	---	-------	---	-------	---	-------	---

	emp_id		name		department		salary		age		city	
--	--------	--	------	--	------------	--	--------	--	-----	--	------	--

+	-----	+	-----	+	-----	+	-----	+	-----	+	-----	+
---	-------	---	-------	---	-------	---	-------	---	-------	---	-------	---

	11		ABC		manager		30000		21		karad	
--	----	--	-----	--	---------	--	-------	--	----	--	-------	--

	12		PQR		ceo		50000		20		satara	
--	----	--	-----	--	-----	--	-------	--	----	--	--------	--

	13		XYZ		worker		23500		22		pune	
--	----	--	-----	--	--------	--	-------	--	----	--	------	--

	14		sham		encharge		2900000		42		mumbai	
--	----	--	------	--	----------	--	---------	--	----	--	--------	--

	15		ram		assistent manager		290000		32		kolhapur	
--	----	--	-----	--	-------------------	--	--------	--	----	--	----------	--

	15		ram		assistent manager		29000		32		kolhapur	
--	----	--	-----	--	-------------------	--	-------	--	----	--	----------	--

+	-----	+	-----	+	-----	+	-----	+	-----	+	-----	+
---	-------	---	-------	---	-------	---	-------	---	-------	---	-------	---

6 rows in set (0.04 sec)

mysql> select \* from employee union all select \* from employee\_1;

+	-----	+	-----	+	-----	+	-----	+	-----	+	-----	+
---	-------	---	-------	---	-------	---	-------	---	-------	---	-------	---

	emp_id		name		department		salary		age		city	
--	--------	--	------	--	------------	--	--------	--	-----	--	------	--

+	-----	+	-----	+	-----	+	-----	+	-----	+	-----	+
---	-------	---	-------	---	-------	---	-------	---	-------	---	-------	---

	11		ABC		manager		30000		21		karad	
--	----	--	-----	--	---------	--	-------	--	----	--	-------	--

	12		PQR		ceo		50000		20		satara	
--	----	--	-----	--	-----	--	-------	--	----	--	--------	--

	13		XYZ		worker		23500		22		pune	
--	----	--	-----	--	--------	--	-------	--	----	--	------	--

	14		sham		encharge		2900000		42		mumbai	
--	----	--	------	--	----------	--	---------	--	----	--	--------	--

	15		ram		assistent manager		290000		32		kolhapur	
--	----	--	-----	--	-------------------	--	--------	--	----	--	----------	--

	13		XYZ		worker		23500		22		pune	
--	----	--	-----	--	--------	--	-------	--	----	--	------	--

	15	ram	assistant manager	29000	32	kolhapur	
--	----	-----	-------------------	-------	----	----------	--

+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
---------	---------	---------	---------	---------	---------	---------

7 rows in set (0.00 sec)

## Joins:

```
mysql> create database agce;
```

Query OK, 1 row affected (0.09 sec)

```
mysql> use agce;
```

Database changed

```
mysql> create table orders(orde_id int,customer_id int,order_date date);
```

Query OK, 0 rows affected (0.63 sec)

```
mysql> desc orders;
```

+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
---------	---------	---------	---------	---------	---------

Field	Type	Null	Key	Default	Extra	
-------	------	------	-----	---------	-------	--

+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
---------	---------	---------	---------	---------	---------

orde_id	int	YES		NULL		
---------	-----	-----	--	------	--	--

customer_id	int	YES		NULL		
-------------	-----	-----	--	------	--	--

order_date	date	YES		NULL		
------------	------	-----	--	------	--	--

+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
---------	---------	---------	---------	---------	---------

3 rows in set (0.02 sec)

```
mysql> insert into orders values(10308,2,"1996-09-18");
```

Query OK, 1 row affected (0.04 sec)

```
mysql> insert into orders values(10309,37,"1996-09-19");
```

Query OK, 1 row affected (0.08 sec)

```
mysql> insert into orders values(10310,77,"1996-09-20");
```

Query OK, 1 row affected (0.06 sec)

```
mysql> select * from orders;
```

orde_id	customer_id	order_date
10308	2	1996-09-18
10309	37	1996-09-19
10310	77	1996-09-20

3 rows in set (0.00 sec)

```
mysql> create table customers(customer_id int,customer_name char,city char,contact_name char);
```

Query OK, 0 rows affected (0.41 sec)

```
mysql> alter table customers modify customer_name char(30);
```

Query OK, 0 rows affected (0.53 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> alter table customers modify city char(20);
```

Query OK, 0 rows affected (0.58 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> alter table customers modify contact_name char(20);
```

```
Query OK, 0 rows affected (1.25 sec)
```

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

```
mysql> insert into customers values(1,"ABC","satara","abc");
```

```
Query OK, 1 row affected (0.06 sec)
```

```
mysql> insert into customers values(2,"PQR","karad","pqr");
```

```
Query OK, 1 row affected (0.06 sec)
```

```
mysql> insert into customers values(3,"XYZ","pune","xyz");
```

```
Query OK, 1 row affected (0.05 sec)
```

```
mysql> select * from customers;
```

```
+-----+-----+-----+-----+
| customer_id | customer_name | city | contact_name |
+-----+-----+-----+-----+
|      1 | ABC      | satara | abc      |
|      2 | PQR      | karad | pqr      |
|      3 | XYZ      | pune  | xyz      |
+-----+-----+-----+-----+
```

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

```
mysql> select orders.orde_id,customers.customer_name,orders.order_date from orders inner
join customers on
```

```
-> orders.customer_id=customers.customer_id;
```

```
+-----+-----+-----+-----+
```

```
| orde_id | customer_name | order_date |
```

```
+-----+-----+-----+
```

```
| 10308 | PQR          | 1996-09-18 |
```

```
+-----+-----+-----+
```

1 row in set (0.02 sec)

```
mysql> select orders.orde_id,customers.customer_id from customers left join orders on
```

```
-> customers.customer_id=orders.orde_id
```

```
-> order by customers.customer_name;
```

```
+-----+-----+
```

```
| orde_id | customer_id |
```

```
+-----+-----+
```

```
| NULL | 2 |
```

```
| NULL | 3 |
```

```
| NULL | 1 |
```

```
+-----+-----+
```

3 rows in set (0.04 sec)

```
mysql> select orders.orde_id,customers.customer_id from customers left join orders on  
customers.customer_id=orders.customer_id order by customers.customer_name;
```

```
+-----+-----+
```

```
| orde_id | customer_id |
```

```
+-----+-----+
```

```
| 10308 | 2 |
```

```
| NULL | 3 |
```

```
| NULL | 1 |
```

```
+-----+-----+
```

3 rows in set (0.00 sec)

```
select orders.orde_id,customers.customer_id from customers right join orders on  
customers.customer_id=orders.customer_id order by customers.customer_name;
```

orde_id	customer_id
10309	NULL
10310	NULL
10308	2

3 rows in set (0.00 sec)

### Experiment No. 05

\*\*\*\*\*

**Title:** To Create Database and write PL/SQL queries to retrieve information from database.

**Name:** Rahulkumar Varma

**Class:** TE-CSE

**Batch:** T1

**Roll No:** 3020

\*\*\*\*\*

Create table pl\_sql(ID number(4), NAME varchar(20), Mobile\_no varchar(10));

Statement processed.

Insert into pl\_sql values(3022 , 'Prasanna nikam', '9876543210');

Insert into pl\_sql values(3022 , 'Shivlal Yadav', '9865720455');

Insert into pl\_sql values(3022 , 'Rahul varma', '8329806079');

Statement processed.

Select \* from pl\_sql;

Statement processed.

ID	NAME	MOBILE_NO
3022	Prasanna nikam	9876543210
3021	Shivlal Yadav	9865720455
3020	Rahul varma	8329806079

Program:

```
declare
count_id number;
count_All number;
begin
select count(distinct ID) INTO count_id FROM pl_sql;
select count(*) into count_All from pl_sql;
dbms_output.put_line(count_id);
dbms_output.put_line(count_All);
end;
```

Output:

4  
6

Statement processed.

## Experiment No. 8

\*\*\*\*\*

**Title:** To implementation of Database System for application such as hotel management office automation , hospital management.

**Name:** Rahul Kumar Varma

**Class:** TE-CSE

**Batch:** T1

**Roll No:** 3020

\*\*\*\*\*

### Program:

```
import mysql.connector

class db_operation:
    def __init__(self):
        self.con = mysql.connector.connect(
            host='localhost',
            database='data',
            user='root',
            password='')

        print("connection sucssesfull\n")
        query = "create table if not exists user(Id
int(4),Name varchar(30),Mobile_No int(10))"
        cur = self.con.cursor()
        result = cur.execute(query)
        print("Table Created Sucssesfully\n")

    def data_insert(self):
        id = int(input("Enter Id: "))
        name = input("Enter Name: ")
        mobile_no = int(input("Enter Mobile No: "))
        query = f"insert into user(Id,Name,Mobile_no)
values({id},{name}', '{mobile_no}')"
        cur = self.con.cursor()
        cur.execute(query)
        self.con.commit()
        print("\n Data inserted Sucssesfully\n")

    def data_retrieve(self):
        query = "select * from user"
        cur = self.con.cursor()
        cur.execute(query)
        result = cur.fetchall()
        for row in result:
            print(f"Id : {row[0]}")
            print(f"Name : {row[1]}")
            print(f"Mobile No : {row[2]}\n")

        print("\nAll Data retrived sucssesfully\n")
```



```

def data_retrive_by_Id(self):
    Id = int(input("Enter Id : "))
    query = f"select * from user where id ={Id}"
    cur = self.con.cursor()
    cur.execute(query)
    result = cur.fetchall()
    for row in result:
        print(f"\nId : {row[0]}")
        print(f"Name : {row[1]}")
        print(f"Mobile No : {row[2]}\n")

    print("\n Data retrived succsesfully\n")

def data_delet(self):
    Id = int(input("Enter Id : "))
    query = f"delete from user where id ={Id}"
    cur = self.con.cursor()
    cur.execute(query)
    self.con.commit()
    print("\n Data succsesfully deleted\n")

def data_update(self):
    Id = int(input("Enter Id : "))
    newName = input("Enter New Name: ")
    newMOBILE_no = input("Enter New Mobile No: ")
    query = f"update user set Name='{newName}',
Mobile_NO='{newMOBILE_no}' where id ={Id}"
    cur = self.con.cursor()
    cur.execute(query)
    self.con.commit()
    print("\n Data succsesfully Updated\n")

def main():
    db = db_operation()
    while True:
        print("Enter 1 to insert new data")
        print("Enter 2 to display all data")
        print("Enter 3 to display one user data")
        print("Enter 4 to delet data")
        print("Enter 5 to update data")
        print("Enter 6 to Exit\n")

        try:
            select = int(input("Enter number: "))
            if select==1:
                db.data_insert()
            elif select==2:
                db.data_retrive()
            elif select==3:
                db.data_retrive_by_Id()

```

```

elif select==4:
    db.data_delet()
elif select==5:
    db.data_update()
elif select==6:
    break
else:
    print("Invalid Input! Try again...\n\n")

except Exception as e:
    print(e)

if __name__ == "__main__":
    main()

```

## Output:

connection succsesfull

Table Created Succsesfully

Enter 1 to insert new data  
Enter 2 to display all data  
Enter 3 to display one user data  
Enter 4 to delet data  
Enter 5 to update data  
Enter 6 to Exit

Enter number: 1  
Enter Id: 1001  
Enter Name: Rahulkumar  
Enter Mobile No: 7378963258

Data inserted Succsesfully

Enter 1 to insert new data  
Enter 2 to display all data  
Enter 3 to display one user data  
Enter 4 to delet data  
Enter 5 to update data  
Enter 6 to Exit

Enter number: 2  
Id : 3060  
Name : Rahul  
Mobile No : 8329806079

Id : 1001  
Name : Rahulkumar  
Mobile No : 7378963258

All Data retrived succsesfully

Enter 1 to insert new data  
Enter 2 to display all data  
Enter 3 to display one user data  
Enter 4 to delet data  
Enter 5 to update data  
Enter 6 to Exit

Enter number: 3  
Enter Id : 1001

Id : 1001  
Name : Rahulkumar  
Mobile No : 7378963258

Data retrived succsesfully

Enter 1 to insert new data  
Enter 2 to display all data  
Enter 3 to display one user data  
Enter 4 to delet data  
Enter 5 to update data  
Enter 6 to Exit

Enter number: 4  
Enter Id : 3060

Data succsesfully deleted

Enter 1 to insert new data  
Enter 2 to display all data  
Enter 3 to display one user data  
Enter 4 to delet data  
Enter 5 to update data  
Enter 6 to Exit

## Experiment No. 10

\*\*\*\*\*

**Title:** Large object – CLOB, NCLOB, BLOB and BFILE.

**Name:** Rahulkumar Varma

**Class:** TE-CSE

**Batch:** T1

**Roll No:** 3020

\*\*\*\*\*

### CLOB:

```
mysql> create database Large_object;
Query OK, 1 row affected (0.07 sec)
```

```
mysql> use Large_object;
Database changed
```

```
mysql> create table Clob_data( Id int(5), Name varchar(20),File longtext);
Query OK, 0 rows affected, 1 warning (0.47 sec)
```

```
mysql> insert into clob_data values(3020,'Rahulkumar varma', 'Any_big_text');
Query OK, 1 row affected (0.16 sec)
```

```
mysql> select * from clob_data;
+-----+-----+-----+
| Id | Name      | File      |
+-----+-----+-----+
| 3020 | Rahulkumar varma | Any_big_text |
+-----+-----+-----+
1 row in set (0.00 sec)
```

### BLOB:

```
mysql> use Large_object;
Database changed
```

```
mysql> create table blob_data(Id int(5),Name varchar(20),File blob);
Query OK, 0 rows affected, 1 warning (0.27 sec)
```

```
mysql> insert into blob_data values(3020,'Rahulkumar varma','Documents/img.jpeg');
Query OK, 1 row affected (0.04 sec)
```

```
mysql> select * from blob_data;
+-----+-----+-----+
| Id | Name      | File      |
+-----+-----+-----+
| 3020 | Rahulkumar varma | 'Documents/img.jpeg' |
+-----+-----+-----+
1 row in set (0.02 sec)
```

## Experiment No. 06

\*\*\*\*\*

**Title:** To create Trigger and Cursor.

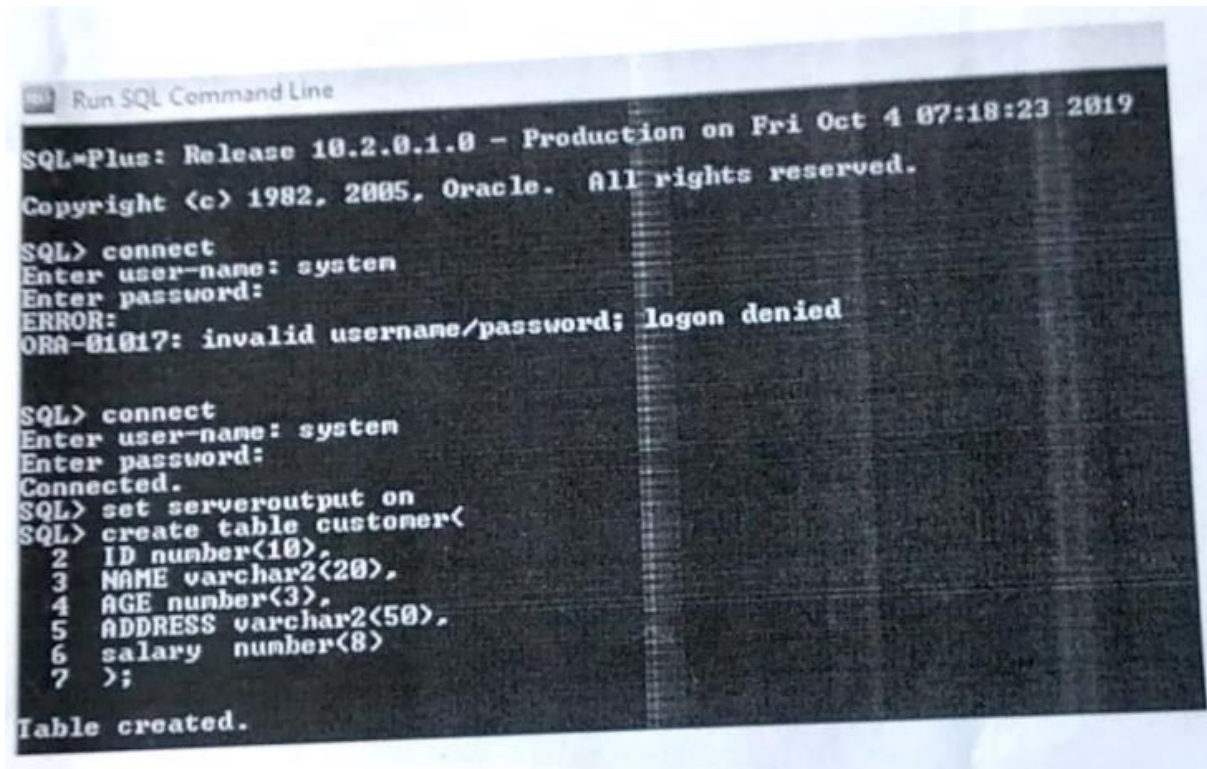
**Name:** Rahulkumar Varma

**Class:** TE CSE

**Batch:** T1

**Roll No:** 3020

\*\*\*\*\*



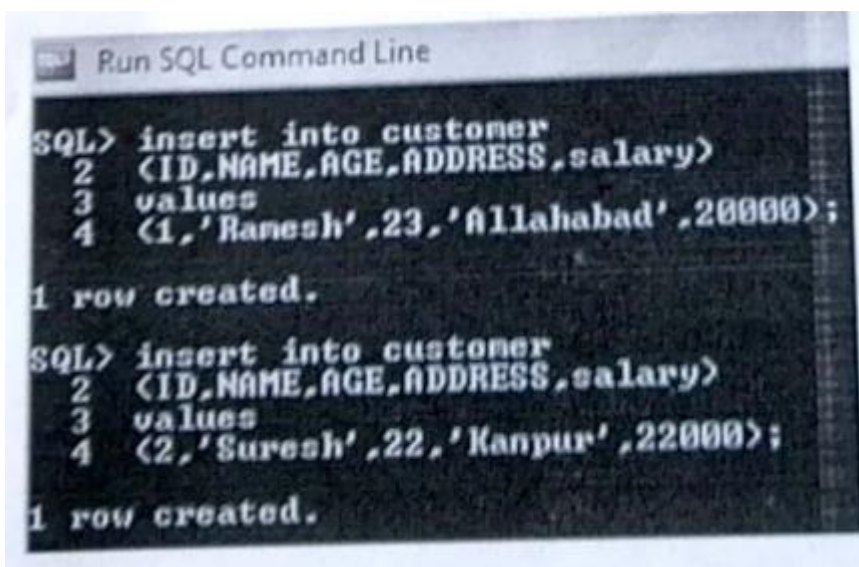
The screenshot shows a 'Run SQL Command Line' window. The title bar reads 'Run SQL Command Line'. The main text area contains the following text: 'SQL\*Plus: Release 10.2.0.1.0 - Production on Fri Oct 4 07:18:23 2019', 'Copyright (c) 1982, 2005, Oracle. All rights reserved.', 'SQL> connect', 'Enter user-name: system', 'Enter password:', 'ERROR:', 'ORA-01017: invalid username/password; logon denied', 'SQL> connect', 'Enter user-name: system', 'Enter password:', 'Connected.', 'SQL> set serveroutput on', 'SQL> create table customer(', '2 ID number(10),', '3 NAME varchar2(20),', '4 AGE number(3),', '5 ADDRESS varchar2(50),', '6 salary number(8)', '7 );', 'Table created.'

```
SQL*Plus: Release 10.2.0.1.0 - Production on Fri Oct 4 07:18:23 2019
Copyright (c) 1982, 2005, Oracle. All rights reserved.

SQL> connect
Enter user-name: system
Enter password:
ERROR:
ORA-01017: invalid username/password; logon denied

SQL> connect
Enter user-name: system
Enter password:
Connected.
SQL> set serveroutput on
SQL> create table customer(
2 ID number(10),
3 NAME varchar2(20),
4 AGE number(3),
5 ADDRESS varchar2(50),
6 salary number(8)
7 );

Table created.
```



The screenshot shows a 'Run SQL Command Line' window. The title bar reads 'Run SQL Command Line'. The main text area contains the following text: 'SQL> insert into customer', '2 (ID,NAME,AGE,ADDRESS,salary)', '3 values', '4 (1,'Ramesh',23,'Allahabad',20000);', '1 row created.', 'SQL> insert into customer', '2 (ID,NAME,AGE,ADDRESS,salary)', '3 values', '4 (2,'Suresh',22,'Kanpur',22000);', '1 row created.'

```
SQL> insert into customer
2 (ID,NAME,AGE,ADDRESS,salary)
3 values
4 (1,'Ramesh',23,'Allahabad',20000);

1 row created.

SQL> insert into customer
2 (ID,NAME,AGE,ADDRESS,salary)
3 values
4 (2,'Suresh',22,'Kanpur',22000);

1 row created.
```



```
Run SQL Command Line
SQL> create OR replace TRIGGER display_salary_changes
  2 before DELETE OR insert or update on customer
  3 for each row
  4 when(NEW.ID>0)
  5 declare
  6   sal_diff number;
  7 begin
  8   sal_diff:=NEW.salary-:OLD.salary;
  9   dbms_output.put_line('OLD salary:':||:OLD.salary);
 10   dbms_output.put_line('NEW salary:':||:NEW.salary);
 11   dbms_output.put_line('Salary difference:':||sal_diff);
 12 END;
 13 /

Trigger created.
```

```
Run SQL Command Line
SQL> declare
  2   total_rows number(2);
  3   begin
  4   update customer
  5   set salary=salary+5000;
  6   if sql%notfound then
  7     dbms_output.put_line('no customers updated');
  8   elsif sql%found then
  9     total_rows:=sql%rowcount;
 10     dbms_output.put_line(total_rows||'customers updated');
 11   END if;
 12   end;
 13   /
OLD salary:20000
NEW salary:25000
Salary difference:5000
OLD salary:22000
NEW salary:27000
Salary difference:5000
2customers updated

PL/SQL procedure successfully completed.
SQL>
```

## Experiment No. 11

\*\*\*\*\*

**Title:** To creating web-page interface for database application using servlet.

**Name:** Rahulkumar Varma

**Class:** TE CSE

**Batch:** T1

**Roll No:** 3020

\*\*\*\*\*

### Register.html

```
<html>

<body>
    <form action="servlet/Register" method="post">

        Name:<input type="text" name="userName" /><br /><br />
        Password:<input type="password" name="userPass" /><br /><br />
        Email Id:<input type="text" name="userEmail" /><br /><br />
        Country:
        <select name="userCountry">
            <option>India</option>
            <option>Pakistan</option>
            <option>other</option>
        </select>

        <br /><br />
        <input type="submit" value="register" />

    </form>
</body>

</html>
```

### Register.java

```
import java.io.*;
import java.sql.*;
import javax.servlet.ServletException;
import javax.servlet.http.*;

public class Register extends HttpServlet {
    public void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
```

```

String n=request.getParameter("userName");
String p=request.getParameter("userPass");
String e=request.getParameter("userEmail");
String c=request.getParameter("userCountry");

try{
Class.forName("oracle.jdbc.driver.OracleDriver");
Connection con=DriverManager.getConnection(
"jdbc:oracle:thin:@localhost:1521:xe","system","oracle");

PreparedStatement ps=con.prepareStatement(
"insert into registeruser values(?,?,?,?)");

ps.setString(1,n);
ps.setString(2,p);
ps.setString(3,e);
ps.setString(4,c);

int i=ps.executeUpdate();
if(i>0)
out.print("You are successfully registered...");

}catch (Exception e2) {System.out.println(e2);}

out.close();
}
}

```

## Web.xml

```

<web-app>
<servlet>
<servlet-name>Register</servlet-name>
<servlet-class>Register</servlet-class>
</servlet>

<servlet-mapping>
<servlet-name>Register</servlet-name>
<url-pattern>/servlet/Register</url-pattern>
</servlet-mapping>

<welcome-file-list>
<welcome-file>register.html</welcome-file>
</welcome-file-list>

</web-app>

```



register.html x +

File | C:/Users/DELL/Desktop/Database/servlet/register.html

Name:

Password:

Email Id:

Country:

register.html x +

File | C:/Users/DELL/Desktop/Database/servlet/register.html

Name:

Password:

Email Id:

Country:

---

**This page says**

Valid user