

# LAB-1

AIM:-

User management

1. Create user
2. Privileges to user
3. DCL(grant/revoke)
4. Connect
5. Normal user interaction
6. Multi-tasking over local and remote system

THEORY:

- DDL COMMANDS - DDL or Data Definition Language actually consists of the SQL commands that can be used to define the database schema. It simply deals with descriptions of the database schema and is used to create and modify the structure of database objects in the database.
  1. CREATE: This command is used to create the database or its objects (like table, index, function, views, store procedure, and triggers).
  2. DROP: This command is used to delete objects from the database.
  3. ALTER: This is used to alter the structure of the database.
- DML Commands - The SQL commands that deals with the manipulation of data present in the database belong to DML or Data Manipulation Language and this includes most of the SQL statements. It is the component of the SQL statement that controls access to data and to the database. Basically, DCL statements are grouped with DML statements.
  1. INSERT: It is used to insert data into a table.
  2. UPDATE: It is used to update existing data within a table.
  3. DELETE: It is used to delete records from a database table.

QUERIES & RESULTS:

SQL> create user scott identified by tiger;

User created.

SQL> grant connect to scott;

Grant succeeded.

SQL> grant resource, unlimited tablespace, create any table to scott;

Grant succeeded.

SQL> connect

Enter user-name: scott

Enter password: \*\*\*\*\*

Connected.

SQL> create table student(student\_name varchar2(20), roll\_no varchar2(10), branch varchar2(20));

able created.

SQL> drop table student;

Table dropped.

## LAB-2

AIM:-

Suppose you are working as a DBA in a company and a company gives the requirement for creating two users U1 and U2. Both users are working under DBA but U1 and U2 can give privileges to other normal users or each other on his schema regarding insert and view but not deletion of data. Your task is to implement this scenario in oracle database. Also create a table employee (id, name, address) in U1 and give permission to U2 for insert and select over this table. So whenever U2 to perform some updates, U1 and U2 can see it.

THEORY:

User Management - Management of users that were given access to the database is the sole responsibility of the user or users with the administrator role. The administrator has the responsibility to manage how other users in your organization access your database. For example, the administrator can add new users, block access to users who have left the organization, and help users who cannot log in. If we want to have more flexibility and fine-grained access control to our data warehouse, we can create and use our own user-defined user roles to accommodate the special needs of our organization.

QUERIES & RESULTS:

```
SQL> create user U1 identified by tiger;
```

User created.

```
SQL> grant connect to U1;
```

Grant succeeded.

```
SQL> grant unlimited tablespace, create any table to U1;
```

Grant succeeded.

```
SQL> create user U2 identified by tiger;
```

User created.

```
SQL> grant connect to U2;
```

Grant succeeded.

```
SQL> grant unlimited tablespace, create any table to U2;
```

Grant succeeded.

-----

```
SQL>connect
```

Enter user-name: U1

Enter password:

Connected.

```
SQL>create table employee("id" int, "name" varchar2(20), "address" varchar2(30));
```

Table created.

```
SQL> grant select,insert,update on employee to U2;
```

Grant succeeded.

-----

```
SQL> connect
```

Enter user-name:U2

Enter password: \*\*

Connected.

```
SQL> insert into U1.employee values(48,'Deepak','Bihar');
```

```
1 row created.
```

```
SQL> select * from U1.employee;
```

id	name	address
----	------	---------

48	Deepak	Bihar
----	--------	-------

```
SQL> connect Enter
```

```
user-name: U1
```

```
Enter password: **
```

```
Connected.
```

```
SQL> select * from employee;
```

id	name	address
----	------	---------

48	Deepak	Bihar
10	Amit	Bhopal

## LAB-3

AIM:-

1. Create a table STUDENT with the following schema, (student\_id , first\_name, middle\_name, last\_name, email\_id, dob)
2. Add a new column: branch to the existing relation.
3. Change the datatype of student\_id from char to varchar2.
4. Change the name of column/field first\_name to stu\_name
5. Modify the column width of the job last\_name.
6. Rename the table from STUDENT to STUD\_DATA
7. Drop the column email\_id from the table.

THEORY:

DDL changes the structure of the table like creating a table, deleting a table, altering a table, etc. All the command of DDL are auto-committed that means it permanently save all the changes in the database. Here are some commands that come under DDL: CREATE, ALTER, DROP, TRUNCATE

QUERIES & RESULTS:

SQL> connect Enter

user-name: U1

Enter password: \*\*

Connected.

SQL> create table student(student\_id char(11), first\_name varchar2(14),middle\_name varchar2(15),last\_name varchar2(19), email\_id varchar2(31), dob varchar2(11));

Table created.

SQL> alter table student add branch varchar2(20);

Table altered.

SQL> alter table student modify student\_id varchar2(20);

Table altered.

SQL>alter table student rename column first\_name to stu\_name;

Table altered.

SQL> alter table student modify last\_name varchar2(30);

Table altered.

SQL> alter table student rename to stud\_data;

Table altered.

SQL> alter table stud\_data drop column email\_id;

Table altered.

## LAB-4

AIM:-

- 1) Create a table employee with following schema, 'employee\_no', 'employee\_name', 'e\_address', 'e\_phone\_no', 'dept\_no', 'dept\_name', 'job\_id', 'email', 'salary'.
- 2) Write SQL Queries for the following questions”
  1. Insert atleast 5 rows in the table.
  2. Display all the information of employee table.
  3. Display record of each employee who works in dept 10.
  4. Update the 'city' of employee\_no 12 with current city as Nagpur.
  5. Display the details of Employee who works in department MECH.
  6. Delete the 'email' of employee James.
  7. Display the complete record of employee of employees working in sales dept.

QUERIES & RESULTS:

SQL> connect scott

Enter password: \*\*

Connected.

SQL> create table employee(emp\_no number(3),emp\_name varchar(8),emp\_add varchar(9),emp\_ph number(10),dept\_no number(3),dept\_name varchar(5),job\_id number(4),email varchar(18), salary number(5));

Table created.

SQL> desc employee

Name	Null?	Type
EMP_NO		NUMBER(3)
EMP_NAME		VARCHAR2(8)
EMP_ADD		VARCHAR2(9)
EMP_PH		NUMBER(10)
DEPT_NO		NUMBER(3)
DEPT_NAME		VARCHAR2(5)
JOB_ID		NUMBER(4)
EMAIL		VARCHAR2(18)
SALARY		NUMBER(5)

1.

Q 2. (i) Insert atleast 5 rows in the table.

SQL> insert into employee

values(&emp\_no,'&emp\_name','&emp\_add',&emp\_ph,&dept\_no,'&dept\_name',&job\_id,'&email',&salary);

Enter value for emp\_no: 1

Enter value for emp\_name: Ankit

Enter value for emp\_add: Bihar

Enter value for emp\_ph: 0987654321

Enter value for dept\_no: 11

Enter value for dept\_name: Ex

Enter value for job\_id: 111

Enter value for email: ankit@gmail.com

Enter value for salary: 11000

old 1: insert into employee

values(&emp\_no,&emp\_name,&emp\_add,&emp\_ph,&dept\_no,&dept\_name,&job\_id,&email,&salary)

new 1: insert into employee values(1,'Ankit','Bihar',0987654321,11,'Ex',111,'ankit@gmail.com',11000)

1 row created.

SQL> insert into

employee(emp\_no,emp\_name,emp\_add,emp\_ph,dept\_no,dept\_name,job\_id,email,salary)

values(1,'Deepak','Matasi',1234567890,22,'CSE',222,'deepak@gmail.com',12000);

2 row created.

SQL> insert into employee values(3,'Amit','Gaya','1234567811','10','CSE','333','amit@gmail.com',13000);

1 row created.

SQL> insert into employee

values(4,'Suman','Gaya','1234567291','10','MECH','444','suman@gmail.com',14000);

1 row created.

SQL> insert into employee

values(12,'Sumit','Gaya','1534567291','11','MECH','122','sumit@gmail.com',14000);

1 row created.

SQL> insert into employee

values(13,'James','Jamui','1534567291','15','SALES','555','james@gmail.com',15000);

1 row created.

SQL> insert into employee

values(14,'rajesh','Jamui','1534544291','16','SALES','666','rajesh@gmail.com',10000);

1 row created.

Q 2. (ii) Display all the information of employee table.

SQL> select \* from employee;

emp_no	emp_name	emp_add	emp_ph	dept_no	dept_name	job_id	email	salary
1	Ankit	Bihar	0987654321	11	EX	111	ankit@gmail.com	10000
2	Deepak	Matasi	1234567890	11	CSE	222	deepak@gmail.com	12000
3	Amit	Gaya	1234567811	10	CSE	333	amit@gmail.com	13000
4	Suman	Gaya	1234567291	10	MECH	444	suman@gmail.com	14000
12	Sumit	Gaya	1534567291	11	MECH	122	sumit@gmail.com	14000
13	James	Jamui	1534567291	15	SALES	555	james@gmail.com	15000

14	Rajesh	Jamui	1534544291	16	SALES	666	rajesh@gmail.com	10000
----	--------	-------	------------	----	-------	-----	------------------	-------

Q 2. (iii) Display record of each employee who works in dept 10.

SQL> select \* from employee where dept\_no=10;

emp_no	emp_name	emp_add	emp_ph	dept_no	dept_name	job_id	email	salary
3	Amit	Gaya	1234567811	10	CSE	333	amit@gmail.com	13000
4	Suman	Gaya	1234567291	10	MECH	444	suman@gmail.com	14000

Q 2. (iv) Update the 'city' of employee\_no 12 with current city as Nagpur.

SQL> update employee set emp\_add='Nagpur' where emp\_no=12;  
1 row updated.

SQL> select \* from employee where emp\_no=12;

emp_no	emp_name	emp_add	emp_ph	dept_no	dept_name	job_id	email	salary
12	Sumit	Nagpur	1534567291	11	MECH	122	sumit@gmail.com	14000

Q 2. (v) Display the details of Employee who works in department MECH

SQL> select \* from employee where dept\_name='MECH';

emp_no	emp_name	emp_add	emp_ph	dept_no	dept_name	job_id	email	salary
4	Suman	Gaya	1234567291	10	MECH	444	suman@gmail.com	14000
12	Sumit	Nagpur	1534567291	11	MECH	122	sumit@gmail.com	14000

Q 2. (vi) Delete the 'email' of employee James.

SQL> update employee set email="" where emp\_no=13;

1 row updated.

SQL> select \* from employee where emp\_no='13';

emp_no	emp_name	emp_add	emp_ph	dept_no	dept_name	job_id	email	salary
13	James	Jamui	1534567291	15	SALES	555		15000

Q 2. (vii) Display the complete record of employee of employees working in sales dept.

SQL> select \* from employee where dept\_name='SALES';

emp_no	emp_name	emp_add	emp_ph	dept_no	dept_name	job_id	email	salary
13	James	Jamui	1534567291	15	SALES	555		15000
14	Rajesh	Jamui	1534544291	16	SALES	666	rajesh@gmail.com	10000

