

Practical-3

Create table CLIENT_MASTER.

create table CLIENT_MASTER(CLIENTNO int8 primary key, cname varchar(20), city varchar(20), pincode int8, state varchar(20), Bal_Due int8);

Enter Five records in Table CLIENT_MASTER

insert into CLIENT_MASTER VALUES(00001,"Ivan","Mumbai",40054,"Maharastra",15000);

insert into CLIENT_MASTER VALUES(00002,"Ashwini","Chennai",780001,"TamilNadu",0);

insert into CLIENT_MASTER VALUES(00003,"Joshi","Mangalore",560001,"Karnatak",5000);

insert into CLIENT_MASTER VALUES(00004,"Deepak","Chennai",780001,"TamilNadu",0);

insert into CLIENT_MASTER VALUES(00005,"Sharma","Mumbai",40054,"Maharastra",2000);

	CLIENTNO	cname	city	pincode	state	Bal_Due
▶	1	Ivan	Mumbai	40054	Maharastra	15000
	2	Ashwini	Chennai	780001	TamilNadu	0
	3	Joshi	Mangalore	560001	Karnatak	5000
	4	Deepak	Chennai	780001	TamilNadu	0
	5	Sharma	Mumbai	40054	Maharastra	2000
*	NULL	NULL	NULL	NULL	NULL	NULL

Create table PRODUCT_MASTER.

create Table product_master(productno int8 primary key, Pdescription varchar(20), ProfitPercent int8, unitemeasure varchar(20), quntityonHand int8, sellprice int8, costprice int8);

Enter Five records in the table PRODUCT_MASTER.

insert into product_master values(00001, "Tshirt", 5, "piece", 200, 350, 250);

insert into product_master values(00065, "Shirt", 6, "piece", 150, 500, 350);

insert into product_master values(00032, "jeans", 5, "piece", 100, 600, 450);

insert into product_master values(00324, "Skirt", 4, "piece", 120, 750, 500);

insert into product_master values(02345, "CottonJeans", 3, "piece", 80, 850, 550);

	productno	Pdescription	ProfitPercent	unitemeasure	quntityonHand	sellprice	costprice
▶	1	Tshirt	5	piece	200	350	250
	32	jeans	5	piece	100	600	450
	65	Shirt	6	piece	150	500	350
	324	Skirt	4	piece	120	750	500
	2345	CottonJeans	3	piece	80	850	550
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Create a table SALES_MASTER.

create table Sales_Master(SalesManNO int8, Sname varchar(20), add1 varchar(20), add2 varchar(20), city varchar(20), pincode int8, state varchar(20), salary int8);

Enter four records in table SALES_MASTER.

insert into Sales_Master values(00001, "Aman", "A/4", "Worli", "Mumbai", 400002, "Maharastra",100000);

insert into Sales_Master values(00002, "Omkar", "65", "Nariman", "Mumbai", 400001, "Maharastra",200000);

insert into Sales_Master values(00003, "Raj", "P-7", "Bandra", "Mumbai", 400032, "Maharastra",300000);

insert into Sales_Master values(00004, "Ashish", "A/5", "Juhu", "Mumbai", 400044, "Maharastra",400000);

	SalesManNO	Sname	add1	add2	city	pincode	state	salary
▶	1	Aman	A/4	Worli	Mumbai	400002	Maharastra	100000
	2	Omkar	65	Nariman	Mumbai	400001	Maharastra	200000
	3	Raj	P-7	Bandra	Mumbai	400032	Maharastra	300000
	4	Ashish	A/5	Juhu	Mumbai	400044	Maharastra	400000

Find out the names of all clients

select cname from client_master;

	cname
▶	Ivan
	Ashwini
	Joshi
	Deepak
	Sharma

Retrieve the entire contents of the Client_master table

```
select * from client_master;
```

	CLIENTNO	cname	city	pincode	state	Bal_Due
▶	1	Ivan	Mumbai	40054	Maharastra	15000
	2	Ashwini	Chennai	780001	TamilNadu	0
	3	Joshi	Mangalore	560001	Karnatak	5000
	4	Deepak	Chennai	780001	TamilNadu	0
	5	Sharma	Mumbai	40054	Maharastra	2000
★	NULL	NULL	NULL	NULL	NULL	NULL

Retrieve the list of names,city and the state of all the clients

```
select cname,city,state from client_master;
```

	cname	city	state
▶	Ivan	Mumbai	Maharastra
	Ashwini	Chennai	TamilNadu
	Joshi	Mangalore	Karnatak
	Deepak	Chennai	TamilNadu
	Sharma	Mumbai	Maharastra

List the various products available from the Product_Master table

```
select Pdescription from product_master;
```

	Pdescription
▶	Tshirt
	jeans
	Shirt
	Skirt
	CottonJeans

List all the clients who are located in Mumbai

```
select * from Client_Master where city="mumbai";
```

	CLIENTNO	cname	city	pincode	state	Bal_Due
▶	1	Ivan	Mumbai	40054	Maharastra	15000
	5	Sharma	Mumbai	40054	Maharastra	2000
★	NULL	NULL	NULL	NULL	NULL	NULL

Find the names of salesmen who have a salary equal to Rs.100000

```
select sname from sales_Master where salary=100000;
```

	sname
▶	Aman

Change the city of ClientNo'5' to 'Bangaluru'.

```
update client_master
```

```
set city="Bangaluru"
```

```
where CLIENTNO=5;
```

	CLIENTNO	cname	city	pincode	state	Bal_Due
▶	1	Ivan	Mumbai	40054	Maharastra	15000
	2	Ashwini	Chennai	780001	TamilNadu	0
	3	Joshi	Mangalore	560001	Karnatak	5000
	4	Deepak	Chennai	780001	TamilNadu	0
	5	Sharma	Bangaluru	40054	Maharastra	2000
*	NULL	NULL	NULL	NULL	NULL	NULL

Change the cBalDue of ClientNo'1' to Rs.1000.

```
update client_master
```

```
set Bal_Due=1000
```

```
where CLIENTNO=1;
```

	CLIENTNO	cname	city	pincode	state	Bal_Due
▶	1	Ivan	Mumbai	40054	Maharastra	1000
	2	Ashwini	Chennai	780001	TamilNadu	0
	3	Joshi	Mangalore	560001	Karnatak	5000
	4	Deepak	Chennai	780001	TamilNadu	0
	5	Sharma	Bangaluru	40054	Maharastra	2000
*	NULL	NULL	NULL	NULL	NULL	NULL

Change the costprice of 'Shirt ' to Rs.450.

update product_master

set costprice=450

where Pdescription="Shirt";

	productno	Pdescription	ProfitPercent	unitemeasure	quantityonHand	sellprice	costprice
▶	1	Tshirt	5	piece	200	350	250
	32	jeans	5	piece	100	600	450
	65	Shirt	6	piece	150	500	450
	324	Skirt	4	piece	120	750	500
	2345	CottonJeans	3	piece	80	850	550
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Change the city of salesman to Pune.

update sales_master

set city="Pune";

	SalesManNO	Sname	add1	add2	city	pincode	state	salary
▶	1	Aman	A/4	Worli	Pune	400002	Maharastra	100000
	2	Omkar	65	Nariman	Pune	400001	Maharastra	200000
	3	Raj	P-7	Bandra	Pune	400032	Maharastra	300000
	4	Ashish	A/5	Juhu	Pune	400044	Maharastra	400000

Delete all salesman from the Salesman_master whose salaries areequal to Rs.3500.

delete from sales_master

where salary=200000;

	SalesManNO	Sname	add1	add2	city	pincode	state	salary
▶	1	Aman	A/4	Worli	Pune	400002	Maharastra	100000
	3	Raj	P-7	Bandra	Pune	400032	Maharastra	300000
	4	Ashish	A/5	Juhu	Pune	400044	Maharastra	400000

Delete all sproducts from the Product_master where quantity onhand is equal to 100

delete from product_master

where quntityonHand=100;

	productno	Pdescription	ProfitPercent	unitemeasure	quntityonHand	sellprice	costprice
▶	1	Tshirt	5	piece	200	350	250
	65	Shirt	6	piece	150	500	450
	324	Skirt	4	piece	120	750	500
	2345	CottonJeans	3	piece	80	850	550
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Delete from the Client_master where the column state holds thevalue 'Tamilnadu'.

delete from client_master

where state="Tamilnadu";

	CLIENTNO	cname	city	pincode	state	Bal_Due
▶	1	Ivan	Mumbai	40054	Maharastra	1000
	3	Joshi	Mangalore	560001	Karnatak	5000
	5	Sharma	Bangaluru	40054	Maharastra	2000
*	NULL	NULL	NULL	NULL	NULL	NULL

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DATA CONTROL LANGUAGE

AIM:

To implement DCL statements.

OBJECTIVES

To understand DCL commands

THEORY:

Data Control Language (DCL) consists of various commands which are related to data sharing and security of data in database.

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Granting Privileges:

Objects that are created by a user are owned and controlled by that user. If user wishes to access any of the objects belonging to another user, the owner of the object will have to give permissions for such access. This is called Granting of Privileges.

Granting privileges using the GRANT statements:

The GRANT statements provide various types of access to database objects such as tables, views.

Syntax:

GRANT {object

privileges} ON object name

TO username;

Object

Privileges:

each object privilege that is granted authorizes the grantee to perform some operation on the object. The user can grant all the privileges or grant only specific object privileges.

The list of object privileges is as follows:

- **ALTER:** allows the grantee to change the table definitions with the ALTER table command.
- **DELETE:** allows the grantee to remove the records from the table with the DELETE command.
- **INDEX:** allows the grantee to create an index on the table with the CREATE INDEX command.
- **INSERT:** allows the grantee to add records to the table with the INSERT command.
- **SELECT:** allows the grantee to query the table with SELECT command.
- **UPDATE:** allows the grantee to modify the records in the table with the UPDATE command.

Revoking privileges given:

Privileges once given can be denied to a user using the REVOKE command. The object owner can revoke privileges granted to another user.

A user of an object who is not owner, but has been granted the GRANT privilege, has the power to REVOKE the privileges from the grantee.

Revoking permission using the REVOKE statement:

The REVOKE statement is used to deny the grant given on an object.

Syntax:

```
REVOKE {object  
privileges} ON object  
name  
FROM username;
```

The REVOKE command is used to revoke object privileges that the user previously granted to the Revoke.

The REVOKE command cannot be used to revoke the privileges granted through operating system.

RESULT:

Familiarised DCL statements.

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list the names of all clients having 'v' as the second letter in their names.

```
select * from Client_MaSter
```

```
having cname like "_v%";
```

	CLIENTNO	cname	city	pincode	state	Bal_Due
▶	1	Ivan	Mumbai	40054	Maharastra	1000
*	NULL	NULL	NULL	NULL	NULL	NULL

listing of clients who stay in a city whose first letter is 'M'

```
select * from Client_MaSter
```

```
having city like "M%";
```

	CLIENTNO	cname	city	pincode	state	Bal_Due
▶	1	Ivan	Mumbai	40054	Maharastra	1000
	3	Joshi	Mangalore	560001	Karnatak	5000
*	NULL	NULL	NULL	NULL	NULL	NULL

list all clients who stay in 'Bangaluru' or 'Mangalore'

```
select * from Client_MaSter
```

```
having city in ('Bangaluru','Mangalore');
```

	CLIENTNO	cname	city	pincode	state	Bal_Due
▶	3	Joshi	Mangalore	560001	Karnatak	5000
	5	Sharma	Bangaluru	40054	Maharastra	2000
*	NULL	NULL	NULL	NULL	NULL	NULL

list all clients whose BalDue is greater than 10000

```
select * from client_master
```

```
having Bal_Due>110;
```

	CLIENTNO	cname	city	pincode	state	Bal_Due
▶	1	Ivan	Mumbai	40054	Maharastra	1000
	3	Joshi	Mangalore	560001	Karnatak	5000
	5	Sharma	Bangaluru	40054	Maharastra	2000
*	NULL	NULL	NULL	NULL	NULL	NULL

list products whose selling price is greater than 500 and less than or equal to 750

select * from product_master

having sellprice between 500 AND 750;

	productno	Pdescription	ProfitPercent	unitmeasure	quantityonHand	sellprice	costprice
▶	65	Shirt	6	piece	150	500	450
	324	Skirt	4	piece	120	750	500
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

listing of names,city and state of clients who are not in the state of 'maharashtra'.

select cname, city, state from client_MASTER

having state not in ("Maharastra");

	cname	city	state
▶	Joshi	Mangalore	Karnatak

count the total number of orders

select count(clientno) AS "Order" from client_master;

	Order
▶	3

calculating the average price of all products.

select avg(sellprice) AS "Average Price" from product_master;

	Average Price
▶	612.5000

determining the maximum and minimum price for the productprices.

select max(sellprice) as Max, min(sellprice) as Min from product_master;

	Max	Min
▶	850	350

Count the number of products having the price greater than or equal to 500

```
select count(productno) from product_master
```

```
where sellprice >= 500 ;
```

	count(productno)
▶	3

Print the description of product and quantity available on hand for each product.

```
select pdescription, quantityonHand from product_master
```

```
group by productno;
```

	pdescription	quantityonHand
▶	Tshirt	200
	Shirt	150
	Skirt	120
	CottonJeans	80

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