

Write a query on user creation granting privileges to user and revoking privileges from user.

SQL*Plus: Release 10.1.0.2.0 - Production on Sat May 7 10:14:59 2022

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Connected to:

Oracle Database 10g Release 10.1.0.2.0 - Production

SQL> connect system/manager;

Connected.

SQL> create user priya identified by mahi;

User created.

SQL> grant connect to priya with admin option;

Grant succeeded.

SQL> grant all privileges to priya;

Grant succeeded.

SQL> revoke all privileges from priya;

Revoke succeeded.

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Insert The Following into their respective table.
SQL Queries on creating and inserting table.

```
1* create table Client_Master(ClientNo varchar(2),Name varchar(20),City varchar(15),Pincode varchar(10),State varchar(20),BalDue varchar(10));
```

Table created.

```
SQL> insert into Client_Master values('&ClientNo','&Name','&City','&Pincode','&State','&BalDue');
```

Enter value for clientno: C1

Enter value for name: Ivan Bayross

Enter value for city: Mumbai

Enter value for pincode: 400054

Enter value for state: Maharashtra

Enter value for baldue: 15000

```
old 1: insert into Client_Master values('&ClientNo','&Name','&City','&Pincode','&State','&BalDue')
```

```
new 1: insert into Client_Master values('C1','Ivan Bayross','Mumbai',400054,'Maharashtra',15000)
```

1 row created.

```
SQL> insert into Client_Master values('&ClientNo','&Name','&City','&Pincode','&State','&BalDue');
```

Enter value for clientno: C2

Enter value for name: Mamta muzumdar

Enter value for city: Madras

Enter value for pincode: 780001

Enter value for state: Tamil nadu

Enter value for baldue: 0

```
old 1: insert into Client_Master values('&ClientNo','&Name','&City','&Pincode','&State','&BalDue')
```

```
new 1: insert into Client_Master values('C2','Mamta muzumdar','Madras',780001,'Tamil nadu',0)
```

1 row created.

```
SQL> insert into Client_Master values('&ClientNo','&Name','&City','&Pincode','&State','&BalDue');
```

Enter value for clientno: C4

Enter value for name: Ashwini Joshi

Enter value for city: Banglore

Enter value for pincode: 560001

Enter value for state: Karnataka

Enter value for baldue: 0

```
old 1: insert into Client_Master values('&ClientNo','&Name','&City','&Pincode','&State','&BalDue')
```

```
new 1: insert into Client_Master values('C4','Ashwini Joshi','Banglore',560001,'Karnataka',0)
```

1 row created.

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CL	NAME	CITY	PINCODE	STATE	BALDUE
C1	Ivan Bayross	Mumbai	400054	Maharashtra	15000
C2	Mamta muzumdar	Madras	780001	Tamil nadu	0
C3	Chhaya Bankar	Mumbai	400057	Maharashtra	5000
C4	Ashwini Joshi	Banglore	560001	Karnataka	0
C5	Hansel Colaco	Mumbai	400060	Maharashtra	2000
C6	Deepak Sharma	Mangalore	560050	Karanataka	0

6 rows selected.

1* Create table Product_Master(ProductNo varchar(4),Discription varchar(20),ProfitPercent float(4),
SQL> Create table Product_Master(ProductNo varchar(4),Discription varchar(20),ProfitPercent float(4),
,UnitMeasure varchar(10),QtyOnHand varchar(4),ReorderLvl varchar(3),SellPrice varchar(5),CostPrice,
,archar(5));
Table created.

SQL> insert into Product_Master
values('&ProductNo','&Discription','&ProfitPercent','&UnitMeasure','&Qt
yOnHand,&ReorderLvl,&SellPrice,&CostPrice);
Enter value for productno: P1
Enter value for discription: T-shirt
Enter value for profitpercent: 5
Enter value for unitmeasure: Piece
Enter value for qtyonhand: 200
Enter value for reorderlvl: 50
Enter value for sellprice: 350
Enter value for costprice: 250
old 1: insert into Product_Master values('&ProductNo','&Discription','&ProfitPercent','&UnitMeasure'
new 1: insert into Product_Master values('P1','T-shirt',5,'Piece',200,50,350,250)
1 row created.

SQL> ed
SQL> insert into Product_Master
values('&ProductNo','&Discription','&ProfitPercent','&UnitMeasure','&Qt
yOnHand,&ReorderLvl,&SellPrice,&CostPrice);
Enter value for productno: P2
Enter value for discription: Shirt
Enter value for profitpercent: 6
Enter value for unitmeasure: Piece
Enter value for qtyonhand: 150
Enter value for reorderlvl: 50
Enter value for sellprice: 500
Enter value for costprice: 350
old 1: insert into Product_Master values('&ProductNo','&Discription','&ProfitPercent','&UnitMeasure'
new 1: insert into Product_Master values('P2','Shirt',6,'Piece',150,50,500,350)
1 row created.

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```
SQL> insert into Product_Master  
values('&ProductNo','&Discription','&ProfitPercent','&UnitMeasure','&Qt  
yOnHand,&ReorderLvl,&SellPrice,&CostPrice);  
Enter value for productno: P4  
Enter value for discription: Jeans  
Enter value for profitpercent: 5  
Enter value for unitmeasure: Piece  
Enter value for qtyonhand: 100  
Enter value for reorderlvl: 20  
Enter value for sellprice: 750  
Enter value for costprice: 500  
old 1: insert into Product_Master values('&ProductNo','&Discription','&ProfitPercent','&UnitMeasure'  
new 1: insert into Product_Master values('P4','Jeans',5,'Piece',100,20,750,500)  
1 row created.
```

```
SQL> select * from Product_Master ;
```

PROD	DESCRIPTION	PROFITPERCENT	UNITMEASUR	QTYO	REO	SELLP	COSTP
P1	T-shirt	5	Piece	200	50	350	250
P2	Shirt	6	Piece	150	50	500	350
P3	Cotton Jeans	5	Piece	100	20	600	450
P4	Jeans	5	Piece	100	20	750	500

```
SQL> create table Salesman_Master(Colum_name varchar2(6),Salesman_Name varchar(20),Address1  
varchar2(30),Address2 varchar2(30),City varchar(20),Pincode number(8),State varchar2(20),Salamat  
number(8,2),Tgttoget number(6,2),Ytdsales number(6,2),Remarks varchar2(60));
```

Table created.

```
1* insert into Salesman_Master  
values('&Colum_name','&Salesman_Name','&Address1','&Address2','&City','&Pincode','&State','&Salama  
t,&Tgttoget,&Ytdsales,'&Remarks')
```

```
SQL> /
```

Enter value for colum_name: S00001

Enter value for salesman_name: Aman

Enter value for address1: A\14

Enter value for address2: Worli

Enter value for city: Mumbai

Enter value for pincode: 400002

Enter value for state: Maharashtra

Enter value for salamat: 3000

Enter value for tgttoget: 100

Enter value for ytdsales: 50

Enter value for remarks: good

1 rows created.

SQL>select * from Salesman_Master;

COLUMN_NAME	SALESMAN_NAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	SALAMAT	TGTTOGET	YTDSEL
REMARKS									
S00003 good	Raj	p-7		Bandra	Mumbai	400032	Maharashtra	3000	200
S00002 good	Omkar	65		Nariman	Mumbai	400001	Maharashtra	3000	200
S00004 good	Ashish	A/5		Juhu	Mumbai	400044	Maharashtra	3500	200
S00001 good	Aman	A/14		Worli	Mumbai	400002	Maharashtra	3000	100

SQL> desc Salesman_Master;

Name	Null?	Type
COLUMN_NAME		
SALESMAN_NAME		VARCHAR2(6)
ADDRESS1		VARCHAR2(20)
ADDRESS2		VARCHAR2(30)
CITY		VARCHAR2(30)
PINCODE		VARCHAR2(20)
STATE		NUMBER(8)
SALAMAT		VARCHAR2(20)
		NUMBER(8,2)

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TGTTTOGET	NUMBER(6,2)
YTDSALES	NUMBER(6,2)
REMARKS	VARCHAR2(60)

a. Exercise on retrieving records from a table.

➤ Query No:1:- Retrieve the entire contents of the Client_Master table.

```
SQL> select * from Client_Master ;
```

CL	NAME	CITY	PINCODE	STATE	BALDUE
C1	Ivan Bayross	Mumbai	400054	Maharashtra	15000
C2	Mamta muzumdar	Madras	780001	Tamil nadu	0
C3	Chhaya Bankar	Mumbai	400057	Maharashtra	5000
C4	Ashwini Joshi	Banglore	560001	Karnataka	0
C5	Hansel Colaco	Mumbai	400060	Maharashtra	2000
C6	Deepak Sharma	Mangalore	560050	Karanataka	0

6 rows selected.

➤ Quert No:2:- Find out the names of all the clients.

```
SQL> select Name from Client_Master ;
```

NAME

Ivan Bayross
Mamta muzumdar
Chhaya Bankar
Ashwini Joshi
Hansel Colaco
Deepak Sharma

6 rows selected.

➤ Query No:3:- Retrieve the names, city and states of all the clients.

```
SQL> select distinct Name,City,State from Client_Master ;
```

NAME	CITY	STATE
Ashwini Joshi	Banglore	Karnataka
Chhaya Bankar	Mumbai	Maharashtra
Deepak Sharma	Mangalore	Karanataka
Hansel Colaco	Mumbai	Maharashtra
Ivan Bayross	Mumbai	Maharashtra
Mamta muzumdar	Madras	Tamil nadu

6 rows selected.
➤ Query No:4:-List the various products available from the Product_Master table.

SQL> select Discription from Product_Master ;

DISCRIPTION

T-shirt
Shirt
Cotton Jeans
Jeans

➤ Query No:5:-List all the clients who are located in Mumbai.

SQL> select * from Client_Master where City='Mumbai' ;

CL	NAME	CITY	PINCODE	STATE	BALDUE
C1	Ivan Bayross	Mumbai	400054	Maharashtra	15000
C3	Chhaya Bankar	Mumbai	400057	Maharashtra	5000
C5	Hansel Colaco	Mumbai	400060	Maharashtra	2000

b. Exercise on updating records in a table.

➤ Query No 1 :-Change the city of ClientNo 'C5' to 'Banglore'.

SQL> update Client_Master set City='Bangalore' where ClientNo='C5';

1 row updated.

SQL> select * from Client_Master ;

CL	NAME	CITY	PINCODE	STATE	BALDUE
C1	Ivan Bayross	Mumbai	400054	Maharashtra	15000
C2	Mamta muzumdar	Madras	780001	Tamil nadu	0
C3	Chhaya Bankar	Mumbai	400057	Maharashtra	5000

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C4	Ashwini Joshi	Banglore	560001	Karnataka	0
C5	Hansel Colaco	Bangalore	400060	Maharashtra	2000
C6	Deepak Sharma	Mangalore	560050	Karanataka	0

6 rows selected.

➤ Query No 2:-Change the BalDue of ClientNo 'C1' to Rs. 1000

```
SQL> update Client_Master set BalDue=1000 where ClientNo='C1';
```

1 row updated.

```
SQL> select * from Client_Master;
```

CL	NAME	CITY	PINCODE	STATE	BALDUE
C1	Ivan Bayross	Mumbai	400054	Maharashtra	1000
C2	Mamta muzumdar	Madras	780001	Tamil nadu	0
C3	Chhaya Bankar	Mumbai	400057	Maharashtra	5000
C4	Ashwini Joshi	Banglore	560001	Karnataka	0
C5	Hansel Colaco	Bangalore	400060	Maharashtra	2000
C6	Deepak Sharma	Mangalore	560050	Karanataka	0

6 rows selected.

C. Change the cost price of 'Trousers' to Rs. 950.00.

```
SQL> update PRODUCT_MASTER set COST_PRICE=950.00 where  
PRODUCT_NUMBER='C0005';
```

1 row updated.

Description = 'Trousers'

```
SQL> select COST_PRICE from PRODUCT_MASTER where  
PRODUCT_NUMBER='C0005';
```

COST_PRICE

```
-----  
950.00
```

C. Exercise on deleting records in a table

- Query No.1 :- Delete all Salesmen from the Salesman_Master whose salaries are equal to Rs. 3500.

SQL> delete from SALESMAN_MASTER where SALAMAT=3500;

1 row deleted.

SQL> select * from SALESMAN_MASTER;

COLUMN_NAME	SALESMAN_NAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	SALAMAT	TGTTOGET	YTDSALES
REMARKS									
S00003 good	Raj	p-7	Bandra	Mumbai	400032	Maharashtra	3000	200	100
S00002 good	Omkar	65	Nariman	Mumbai	400001	Maharashtra	3000	200	50
S00001 good	Aman	A/14	Worli	Mumbai	400002	Maharashtra	3000	100	50

- Query No.2:-Change the city of the Salesman to Pune.

SQL> update SALESMAN_MASTER set CITY='PUNE';

3 rows updated.

COLUMN_NAME	SALESMAN_NAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	SALAMAT	TGTTOGET	YTDSALES
REMARKS									
S00003 good	Raj	p-7	Bandra	PUNE	400032	Maharashtra	3000	200	100
S00002 good	Omkar	65	Nariman	PUNE	400001	Maharashtra	3000	200	50
S00001 good	Aman	A/14	Worli	PUNE	400002	Maharashtra	3000	100	50

D. Exercise on renaming the table.

- Query No.1:-Change the name of Salesman_Master table to Sman_Mast.

SQL> rename SALESMAN_MASTER to SMAN_MAST;

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Table renamed.

SQL> desc SMAN_MAST;

Name	Null?	Type
COLUMN_NAME		VARCHAR2(6)
SALESMAN_NAME		VARCHAR2(20)
ADDRESS1		VARCHAR2(30)
ADDRESS2		VARCHAR2(30)
CITY		VARCHAR2(20)
PINCODE		NUMBER(8)
STATE		VARCHAR2(20)
SALAMAT		NUMBER(8,2)
TGTTOGET		NUMBER(6,2)
YTDSALES		NUMBER(6,2)
REMARKS		VARCHAR2(60)

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11. Write a Query on to create a table using primary key and foreign key constraints.

```
SQL> CREATE TABLE supplier  
2 (supplier_id numeric(10) not null,  
3 supplier_name varchar2(50) not null,  
4 contact_name varchar2(50),  
5 CONSTRAINT supplier_pk PRIMARY KEY (supplier_id));
```

Table created.

```
SQL> CREATE TABLE products  
2 (product_id numeric(10) not null,  
3 supplier_id numeric(10) not null,  
4 CONSTRAINT fk_supplier  
5 FOREIGN KEY (supplier_id)  
6 REFERENCES supplier(supplier_id));
```

Table created.

```
SQL> desc supplier
```

Name	Null?	Type
SUPPLIER_ID	NOT NULL	NUMBER(10)
SUPPLIER_NAME	NOT NULL	VARCHAR2(50)
CONTACT_NAME		VARCHAR2(50)

```
SQL> desc products
```

Name	Null?	Type
PRODUCT_ID	NOT NULL	NUMBER(10)
SUPPLIER_ID	NOT NULL	NUMBER(10)

```
SQL> insert into supplier values(11,'sarthak','amravati');  
1 row created.
```

```
SQL> insert into supplier values(12,'sakshi','pune');  
1 row created.
```

```
SQL> insert into supplier values(13,'apoorva','nagpur');  
1 row created.
```

```
SQL> insert into supplier values(13,'muktai','mumbai');  
insert into supplier values(13,'muktai','mumbai')  
*
```

ERROR at line 1:

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ORA-00001: unique constraint (SARTHAK.SUPPLIER_PK) violated

SQL> insert into supplier values(14,'muktai','mumbai');
1 row created.

SQL> select * from supplier;

SUPPLIER_ID	SUPPLIER_NAME	CONTACT_NAME
11	sarthakamravati	
12	sakshipune	
13	apoorvanagpur	
14	muktaimumbai	

SQL> insert into products values(111,11);
1 row created.

SQL> insert into products values(222,12);
1 row created.

SQL> insert into products values(333,13);
1 row created.

SQL> insert into products values(444,14);
1 row created.

SQL> insert into products values(555,15);
insert into products values(555,15)
*

ERROR at line 1:
ORA-02291: integrity constraint (SARTHAK.FK_SUPPLIER) violated - parent key not found

SQL> select * from products;

PRODUCT_ID	SUPPLIER_ID
111	11
222	12
333	13
444	14

12. Perform a subquery on Relational database Table.

SQL> select * FROM Client_Master;

CLIENT NAME	ADDRESS1	ADDRESS2	CITY	PINCODE STATE	BALDUE
C00001 IVAN BAYROSS			MUMBAI	400054 MAHARASHTRA	15000
C00002 MAMTA MUZUMDAR			MADRAS	780001 TAMIL NADU	0
C00003 CHHAYA BANKAR			MUMBAI	400057 MAHARASHTRA	5000
C00004 ASHWINI JOSHI			BANGALORE	560001 KARNATAKA	0
C00005 HANSEL COLACO			MUMBAI	400060 MAHARASHTRA	2000
C00006 DEEPAK SHARMA			MANGALORE	560050 KARNATAKA	0

6 rows selected.

SQL>

SQL> select * FROM Product_Master;

PRODUC DESCRIPTION	PROFITPERCENT	UNITMEASUR	QTYONHAND	REORDERLVL	SELLSPRICE	COSTPRICE
P00001 T-SHIRTS		5 PIECE	200	50	350	250
P03453 SHIRTS		6 PIECE	150	50	500	350
P06734 COTTON JEANS		5 PIECE	100	20	600	450
P07865 JEANS		5 PIECE	100	20	750	500
P07868 TROUSERS		2 PIECE	150	50	850	550
P07885 PULL OVERS		2.5 PIECE	80	30	700	450
P07965 DENIM SHIRTS		4 PIECE	100	40	350	250
P07975 LYCRA TOPS		5 PIECE	70	30	300	175
P08865 SKIRTS		5 PIECE	75	30	450	300

9 rows selected.

SQL> select * FROM salesman_Master;

SALESM	SALESMANNAME	ADDRESS1	ADDRESS2	CITY
S00001	AMAN	A/14	WORLI	MUMBAI
S00002	OMKAR	65	NARIMAN	MUMBAI
S00003	YASH	P-7	BANDRA	MUMBAI
S00004	ADITI	A/5	JUHU	BOMBAY

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PINCODE STATE	SALAMT	TGTTOGET	YTDSALES	REMARK
400002 MAHARASHTRA	3000	100	50	GOOD
400001 MAHARASHTRA	3000	200	100	GOOD
400032 MAHARASHTRA	3000	200	100	GOOD
400044 MAHARASHTRA	3500	200	150	GOOD

SQL> select * FROM Sales_order;

ORDERN	CLIENT	ORDERDATE	DELYADDR
019001	C00001	12-JUN-02	
019002	C00002	25-JUN-02	
019003	C00003	18-FEB-02	
019004	C00001	03-APR-02	
046866	C00004	20-MAY-02	
019008	C00005	24-MAY-02	

6 rows selected.

SALESM	D	B	DELYDATE	ORDERSTATUS
S00001	F	N	20-JUL-02	In Process
S00002	P	N	27-JUL-02	Cancelled
S00003	F	Y	20-FEB-02	Fulfilled
S00001	F	Y	07-APR-02	Fulfilled
S00002	P	N	22-MAY-02	Cancelled
S00004	F	N	26-JUL-02	In Process

SQL> select * FROM Sales_Order_Details;

ORDERN	PRODUC	QTYORDERED	QTYDISP	PRODUCTRATE
019001	P00001	4	4	525
019001	P07965	2	1	8400
019001	P07885	2	1	5250
019002	P00001	10	0	525
046866	P07868	3	3	3150
046866	P07885	3	1	5250
046866	P00001	10	10	525
046866	P03453	4	4	1050
019003	P03453	2	2	1050
019003	P06734	1	1	12000
046866	P07965	1	0	8400

ORDERN	PRODUC	QTYORDERED	QTYDISP	PRODUCTRATE
046866	P07975	1	0	1050
019008	P00001	10	5	525
019008	P07975	5	3	1050

14 rows selected.

SQL statements for exercises on Sub-queries.

A.Finding the non-moving products.

SQL> SELECT ProductNo, Description FROM Product_master WHERE Productno NOT IN(SELECT ProductNo FROM Sales_Order_Details);

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PRODUCT DESCRIPTION

P07865 JEANS

P08865 SKIRTS

B. Finding the name and complete address for the customer who has placed order number 'O19001'.

SQL> SELECT Name , Address1, Address2, City, State, PinCode FROM Client_Master
WHERE ClientNo IN(SELECT ClientNo FROM Sales_Order WHERE OrderNo =
'O19001');

NAME	ADDRESS1	ADDRESS2	CITY	STATE	PINCODE
IVAN BAYROSS		MUMBAI	MAHARASHTRA		400054

3. Find the client who have places orders before the month of May'02.

SQL> SELECT ClientNo, Name FROM Client_Master WHERE ClientNo IN(SELECT ClientNo FROM Sales_Order WHERE TO_CHAR(OrderDate,'MON,YY')<'MAY,02');

CLIENT NAME

C00001 IVAN BAYROSS

C00002 MAMTA MUZUMDAR

C00003 CHHAYA BANKAR

4. Find out if the product 'LYCRA TOPS' has been ordered by any client and print the ClientNo, Name to whom it was sold.

SQL> SELECT ClientNo , Name FROM Client_Master WHERE ClientNo IN(SELECT ClientNo FROM Sales_Order WHERE OrderNo IN(Select OrderNo FROM Sales_Order_Details WHERE ProductNo IN(SELECT ProductNo FROM Product_master WHERE Description='LYCRA TOPS')));

CLIENT NAME

C00004 ASHWINI JOSHI

C00005 HANSEL COLACO

E. Find the names of clients who have placed *orders* worth Rs. 1000 or more.

```
SQL> SELECT Name FROM Client_Master WHERE ClientNo IN (SELECT ClientNo  
FROM Sales_Order WHERE OrderNo IN (SELECT OrderNo FROM Sales_Order_Details  
WHERE (QtyOrdered * ProductRate) >= 10000));
```

NAME

IVAN BAYROSS

CHHAYA BANKAR

ASHWINI JOSHI

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13. Write a query to create indexs on a table.

```
SQL> CREATE TABLE PROD_MASTER(PRODUCTNO varchar2(6),DESCRIPTION  
varchar2(15),PROFITPERCENT number(4,2),UNITMEASURE varchar2(10),QTYONHAND  
number(8),REORDERLVL number(8),SELLSPRICE number(8,2),COSTPRICE number(8,2));  
Table created.
```

```
SQL> INSERT INTO PROD_MASTER VALUES('P00001','T-SHIRTS',5,'PIECE',200,50,350,250);  
1 row created.
```

```
SQL> INSERT INTO PROD_MASTER VALUES('P03453','SHIRTS',6,'PIECE',150,50,500,350);  
1 row created.
```

```
SQL> INSERT INTO PROD_MASTER VALUES('P06734','COTTON JEANS',5,'PIECE',100,20,600,450);  
1 row created.
```

```
SQL> INSERT INTO PROD_MASTER VALUES('P07865','JEANS',5,'PIECE',100,20,750,500);  
1 row created.
```

```
SQL> INSERT INTO PROD_MASTER VALUES('P07868','TROUSERS',2,'PIECE',150,50,850,550);  
1 row created.
```

```
SQL> INSERT INTO PROD_MASTER VALUES('P07885','PULL OVERS',2.5,'PIECE',80,30,700,450);  
1 row created.
```

```
SQL> INSERT INTO PROD_MASTER VALUES('P07965','DENIM SHIRTS',4,'PIECE',100,40,350,250);  
1 row created.
```

```
SQL> INSERT INTO PROD_MASTER VALUES('P07975','LYCRA TOPS',5,'PIECE',70,30,300,175);  
1 row created.
```

```
SQL> INSERT INTO PROD_MASTER VALUES('P08865','SKIRTS',5,'PIECE',75,30,450,300);  
1 row created.
```

```
SQL> INSERT INTO PROD_MASTER VALUES('P08865','JEANS',5,'PIECE',75,30,450,300);  
1 row created.
```

SQL> SELECT * FROM PROD_MASTER;

PROD DESCRIPTION PROFITPERCENT UNITMEASUR QTYONHAND REORDERLVL SELLSPRICE COSTPRICE

P00001	T-SHIRTS	5	PIECE	200	50	350	250
P03453	SHIRTS	6	PIECE	150	50	500	350
P06734	COTTON JEANS	5	PIECE	100	20	600	450
P07865	JEANS	5	PIECE	100	20	750	500
P07868	TROUSERS	2	PIECE	150	50	850	550
P07885	PULL OVERS	2.5	PIECE	80	30	700	450
P07965	DENIM SHIRTS	4	PIECE	100	40	350	250
P07975	LYCRA TOPS	5	PIECE	70	30	300	175
P08865	SKIRTS	5	PIECE	75	30	450	300
P08865	JEANS	5	PIECE	75	30	450	300

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10 rows selected.

```
SQL> CREATE INDEX PROD_DESCRIPTION ON PROD_MASTER(DESCRIPTION);
```

Index created.

```
SQL> SELECT PRODUCTNO,DESCRIPTION FROM PROD_MASTER WHERE DESCRIPTION='JEANS';
```

PRODUC DESCRIPTION

```
P07865 JEANS  
P08865 JEANS
```

14 & 15. Perform a query on table using group by clause and having clause

```
SQL> CREATE TABLE CLIENT_MASTER(CLIENTNO varchar2(6) PRIMARY KEY, NAME varchar2(20) NOT NULL, ADDRESS1 varchar2(30), ADDRESS2 varchar2(30), CITY varchar2(15), PINCODE number(8), STATE varchar2(15), BALDUE number(10,2), CONSTRAINT ck_client CHECK (CLIENTNO like 'C%'));  
Table created.
```

```
SQL> CREATE TABLE PRODUCT_MASTER(PRODUCTNO varchar2(6) PRIMARY KEY, DESCRIPTION varchar2(15) NOT NULL, PROFITPERCENT number(4,2) NOT NULL, UNITMEASURE varchar2(10) NOT NULL, QTYONHAND number(8) NOT NULL, REORDERLVL number(8) NOT NULL, SELLSPRICE number(8,2) NOT NULL, COSTPRICE number(8,2) NOT NULL, CONSTRAINT ck_product CHECK (PRODUCTNO like 'P%'), CONSTRAINT ck_sell CHECK (SELLSPRICE<>0), CONSTRAINT ck_cost CHECK (COSTPRICE<>0));  
Table created.
```

```
SQL> CREATE TABLE SALESMAN_MASTER(SALESMANNO varchar2(6) PRIMARY KEY, SALESMANNAME varchar2(20) NOT NULL, ADDRESS1 varchar2(30) NOT NULL, ADDRESS2 varchar2(30), CITY varchar2(20), PINCODE number(8), STATE varchar2(20), SALAMT number(8,2) NOT NULL, TGTTOGET number(6,2) NOT NULL, YTDSALES number(6,2) NOT NULL, REMARK varchar2(60), CONSTRAINT ck_salesman CHECK (SALESMANNO like 'S%'), CONSTRAINT ck_sal CHECK (SALAMT<>0), CONSTRAINT ck_target CHECK (TGTTOGET<>0));  
Table created.
```

```
SQL> CREATE TABLE SALES_ORDER(ORDERNO varchar2(6) PRIMARY KEY, CLIENTNO varchar2(6) REFERENCES CLIENT_MASTER, ORDERDATE date, DELYADDR varchar2(25), SALESMANNO varchar2(6) REFERENCES SALESMAN_MASTER, DELYTYPE char(1) DEFAULT 'F', BILLEDYN char(1), DELYDATE date, ORDERSTATUS varchar2(10), CONSTRAINT ck_order CHECK (ORDERNO like 'O%'), CONSTRAINT ck_dely_type CHECK (DELYTYPE IN ('P', 'F')), CONSTRAINT ck_ord_status CHECK (ORDERSTATUS IN ('In Process', 'Fulfilled', 'Backorder', 'Cancelled')));  
Table created.
```

SQL> CREATE TABLE SALES_ORDER_DETAILS(ORDERNO varchar2(6) REFERENCES SALES_ORDER, PRODUCTNO varchar2(6) REFERENCE PRODUCT_MASTER, QTYORDERED number(8), QTYDISP number(8), PRODUCTRATE number(10,2), PRIMARY KEY (ORDERNO, PRODUCTNO));
Table created.

✓ 26-04-22

```
SQL> INSERT INTO CLIENT_MASTER(CLIENTNO, NAME, CITY, PINCODE, STATE, BALDUE)  
VALUES('C00001', 'IVAN BAYROSS', 'MUMBAI', 400054, 'MAHARASHTRA', 15000);  
1 row created.
```

```
SQL> INSERT INTO CLIENT_MASTER(CLIENTNO, NAME, CITY, PINCODE, STATE, BALDUE)  
VALUES('C00002', 'MAMTA MUZUMDAR', 'MADRAS', 780001, 'TAMIL NADU', 0);  
1 row created.
```

SQL> INSERT INTO CLIENT_MASTER(CLIENTNO,NAME,CITY,PINCODE,STATE,BALDUE)
VALUES('C00003','CHHAYA BANKAR','MUMBAI',400057,'MAHARASHTRA',5000);
1 row created.

SQL> INSERT INTO CLIENT_MASTER(CLIENTNO,NAME,CITY,PINCODE,STATE,BALDUE)
VALUES('C00004','ASHWINI JOSHI','BANGALORE',560001,'KARNATAKA',0);
1 row created.

SQL> INSERT INTO CLIENT_MASTER(CLIENTNO,NAME,CITY,PINCODE,STATE,BALDUE)
VALUES('C00005','HANSEL COLACO','MUMBAI',400060,'MAHARASHTRA',2000);
1 row created.

SQL> INSERT INTO CLIENT_MASTER(CLIENTNO,NAME,CITY,PINCODE,STATE,BALDUE)
VALUES('C00006','DEEPAK SHARMA','MANGALORE',560050,'KARNATAKA',0);
1 row created.

SQL> INSERT INTO PRODUCT_MASTER VALUES('P00001','T-SHIRTS',5,'PIECE',200,50,350,250);
1 row created.

SQL> INSERT INTO PRODUCT_MASTER VALUES('P03453','SHIRTS',6,'PIECE',150,50,500,350);
1 row created.

SQL> INSERT INTO PRODUCT_MASTER VALUES('P06734','COTTON JEANS',5,'PIECE',100,20,600,450);
1 row created.

SQL> INSERT INTO PRODUCT_MASTER VALUES('P07865','JEANS',5,'PIECE',100,20,750,500);
1 row created.

SQL> INSERT INTO PRODUCT_MASTER VALUES('P07868','TROUSERS',2,'PIECE',150,50,850,550);
1 row created.

SQL> INSERT INTO PRODUCT_MASTER VALUES('P07885','PULL OVERS',2.5,'PIECE',80,30,700,450);
1 row created.

SQL> INSERT INTO PRODUCT_MASTER VALUES('P07965','DENIM SHIRTS',4,'PIECE',100,40,350,250);
1 row created.

SQL> INSERT INTO PRODUCT_MASTER VALUES('P07975','LYCRA TOPS',5,'PIECE',70,30,300,175);
1 row created.

SQL> INSERT INTO PRODUCT_MASTER VALUES('P08865','SKIRTS',5,'PIECE',75,30,450,300);
1 row created.

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SQL> SELECT * FROM PRODUCT_MASTER;

PRODUCT DESCRIPTION	P	ROFITPERCENT	UNITMEASUR	QTYONHAND	REORDERLVL	SELLSPRICE	COSTPRICE
---------------------	---	--------------	------------	-----------	------------	------------	-----------

P00001	T-SHIRTS	5	PIECE	200	50	350	250
P03453	SHIRTS	6	PIECE	150	50	500	350
P06734	COTTON JEANS	5	PIECE	100	20	600	450
P07865	JEANS	5	PIECE	100	20	750	500
P07868	TROUSERS	2	PIECE	150	50	850	550
P07885	PULL OVERS	2.5	PIECE	80	30	700	450
P07965	DENIM SHIRTS	4	PIECE	100	40	350	250
P07975	LYCRA TOPS	5	PIECE	70	30	300	175
P08865	SKIRTS	5	PIECE	75	30	450	300

9 rows selected.

SQL> INSERT INTO SALESMAN_MASTER

VALUES('S00001','AMAN','A/14','WORLI','MUMBAI',400002,'MAHARASHTRA',3000,100,50,'GOOD');

1 row created.

SQL> INSERT INTO SALESMAN_MASTER

VALUES('S00002','OMKAR',65,'NARIMAN','MUMBAI',400001,'MAHARASHTRA',3000,200,100,'GOOD');

1 row created.

SQL> INSERT INTO SALESMAN_MASTER VALUES('S00003','YASH','P-

7','BANDRA','MUMBAI',400032,'MAHARASHTRA',3000,200,100,'GOOD');

1 row created.

SQL> INSERT INTO SALESMAN_MASTER

VALUES('S00004','ADITI','A/5','JUHU','BOMBAY',400044,'MAHARASHTRA',3500,200,150,'GOOD');

1 row created.

SQL> SELECT * FROM SALESMAN_MASTER;

SALESM	SALESMANNAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE
S00001	AMAN	A/14		WORLI	MUMBAI	400002
S00002	OMKAR	65		NARIMAN	MUMBAI	400001
S00003	YASH	P-7		BANDRA	MUMBAI	400032
S00004	ADITI	A/5		JUHU	BOMBAY	400044

SALAMT TGTTOGET YTDSALES REMARK

3000	100	50	Good
3000	200	100	Good
3000	200	100	Good
3500	200	150	Good

SQL> INSERT INTO
SALES_ORDER(ORDERNO, ORDERDATE, CLIENTNO, DELYTYPE, BILLEDYN, SALESMANNO, DELYDATE, ORD
ERSTATUS) VALUES('O19001', '12-JUNE-02', 'C00001', 'F', 'N', 'S00001', '20-JULY-02', 'In Process');
1 row created.

SQL> INSERT INTO
SALES_ORDER(ORDERNO, ORDERDATE, CLIENTNO, DELYTYPE, BILLEDYN, SALESMANNO, DELYDATE, ORD
ERSTATUS) VALUES('O19002', '25-JUNE-02', 'C00002', 'P', 'N', 'S00002', '27-JULY-02', 'Cancelled');
1 row created.

SQL> INSERT INTO
SALES_ORDER(ORDERNO, ORDERDATE, CLIENTNO, DELYTYPE, BILLEDYN, SALESMANNO, DELYDATE, ORD
ERSTATUS) VALUES('O19003', '18-FEB-02', 'C00003', 'F', 'Y', 'S00003', '20-FEB-02', 'Fulfilled');
1 row created.

SQL> INSERT INTO
SALES_ORDER(ORDERNO, ORDERDATE, CLIENTNO, DELYTYPE, BILLEDYN, SALESMANNO, DELYDATE, ORD
ERSTATUS) VALUES('O19004', '03-APRIL-02', 'C00001', 'F', 'Y', 'S00001', '07-APRIL-02', 'Fulfilled');
1 row created.

SQL> INSERT INTO
SALES_ORDER(ORDERNO, ORDERDATE, CLIENTNO, DELYTYPE, BILLEDYN, SALESMANNO, DELYDATE, ORD
ERSTATUS) VALUES('O46866', '20-MAY-02', 'C00004', 'P', 'N', 'S00002', '22-MAY-02', 'Cancelled');
1 row created.

SQL> INSERT INTO
SALES_ORDER(ORDERNO, ORDERDATE, CLIENTNO, DELYTYPE, BILLEDYN, SALESMANNO, DELYDATE, ORD
ERSTATUS) VALUES('O19008', '24-MAY-02', 'C00005', 'F', 'N', 'S00004', '26-JULY-02', 'In Process');
1 row created.

SQL> SELECT * FROM SALES_ORDER;

ORDERN	CLIENT	ORDERDATE	DELYADDR	SALESM	D	B	DELYDATE	ORDERSTATU
O19001	C00001	12-JUN-02		S00001	F	N	20-JUL-02	In Process
O19002	C00002	25-JUN-02		S00002	P	N	27-JUL-02	Cancelled
O19003	C00003	18-FEB-02		S00003	F	Y	20-FEB-02	Fulfilled
O19004	C00001	03-APR-02		S00001	F	Y	07-APR-02	Fulfilled
O46866	C00004	20-MAY-02		S00002	P	N	22-MAY-02	Cancelled
O19008	C00005	24-MAY-02		S00004	F	N	26-JUL-02	In Process

6 rows selected.

SQL> CREATE TABLE SALES_ORDER_DETAILS(ORDERNO varchar2(6) REFERENCES
SALES_ORDER, PRODUCTNO varchar2(6) REFERENCES PRODUCT_MASTER, QTYORDERED
number(8), QTYDISP number(8), PRODUCTRATE number(10,2), PRIMARY KEY
(ORDERNO, PRODUCTNO));

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Table created.

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O19001','P00001',4,4,525);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O19001','P07965',2,1,8400);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O19001','P07885',2,1,5250);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O19002','P00001',10,0,525);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O46866','P07868',3,3,3150);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O46866','P07885',3,1,5250);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O46866','P00001',10,10,525);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O46866','P03453',4,4,1050);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O19003','P03453',2,2,1050);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O19003','P06734',1,1,12000);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O46866','P07965',1,0,8400);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O46866','P07975',1,0,1050);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O19008','P00001',10,5,525);  
1 row created.
```

```
SQL> INSERT INTO  
SALES_ORDER_DETAILS(ORDERNO,PRODUCTNO,QTYORDERED,QTYDISP,PRODUCTRATE)  
VALUES('O19008','P07975',5,3,1050);  
1 row created.
```

```
SQL> SELECT * FROM SALES_ORDER_DETAILS;
```

ORDERNO	PRODUC	QTYORDERED	QTYDISP	PRODUCTRATE
O19001	P00001	4	4	525
O19001	P07965	2	1	8400
O19001	P07885	2	1	5250
O19002	P00001	10	0	525
O46866	P07868	3	3	3150
O46866	P07885	3	1	5250
O46866	P00001	10	10	525
O46866	P03453	4	4	1050
O19003	P03453	2	2	1050
O19003	P06734	1	1	12000
O46866	P07965	1	0	8400
O46866	P07975	1	0	1050
O19008	P00001	10	5	525
O19008	P07975	5	3	1050

14 rows selected.

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```
SQL> SELECT DESCRIPTION,SUM(QTYDISP) FROM PRODUCT_MASTER,SALES_ORDER_DETAILS  
WHERE PRODUCT_MASTER.PRODUCTNO=SALES_ORDER_DETAILS.PRODUCTNO GROUP BY  
DESCRIPTION;
```

DESCRIPTION SUM(QTYDISP)

LYCRA TOPS	3
DENIM SHIRTS	1
TROUSERS	3
SHIRTS	6
COTTON JEANS	1
T-SHIRTS	19
PULL OVERS	2

SQL > SELECT

```
SQL SELECT  
SALES_ORDER_DETAILS.PRODUCTNO,PRODUCT_MASTER.DESCRIPTION,SUM(SALES_ORDER_DETAIL  
S.QTYDISP * SALES_ORDER_DETAILS.PRODUCTRATE) FROM  
SALES_ORDER_DETAILS,PRODUCT_MASTER WHERE  
PRODUCT_MASTER.PRODUCTNO=SALES_ORDER_DETAILS.PRODUCTNO GROUP BY  
SALES_ORDER_DETAILS.PRODUCTNO,PRODUCT_MASTER.DESCRIPTION;
```

PRODUCT DESCRIPTION SUM(SALES_ORDER_DETAILS.QTYDISP*
SALES ORDER DETAILS.PRODUCTRATE)

P06734	COTTON JEANS	12000
P00001	T-SHIRTS	9975
P07868	TROUSERS	9450
P07975	LYCRA TOPS	3150
P07965	DENIM SHIRTS	8400
P03453	SHIRTS	6300
P07885	PULL OVERS	10500

7 rows selected.

~~Ch 30-04-22~~

16. Write a queries using MySQL to create a database in which table, create, insert, where clause.

```
mysql> create table Client_Master1(ClientNo varchar(2),Name varchar(20),City varchar(15),Pincode
varchar(10),State varchar(20),BalDue varchar(10));
```

Table created.

```
mysql> insert into Client_Master1 values('C1','Ivan Bayross','Mumbai',400054,'Maharashtra',15000);
```

1 row created.

```
mysql> insert into Client_Master1 values('C2','Mamta muzumdar','Madras',780001,'Tamil nadu',0);
```

1 row created.

```
mysql> insert into Client_Master1 values('C3','ChhayBankar','Mumbai',400057,'Maharashtra',5000);
```

1 row created.

```
mysql> insert into Client_Master1 values('C4','Ashwini Joshi','Banglore',560001,'Karnataka',0);
```

1 row created.

```
mysql> select * from Client_Master1;
```

CL NAME	CITY	PINCODE	STATE	BALDUE
C1 Ivan Bayross	Mumbai	400054	Maharashtra	15000
C2 Mamta muzumdar	Madras	780001	Tamil nadu	0
C3 ChhayBankar	Mumbai	400057	Maharashtra	5000
C4 Ashwini Joshi	Banglore	560001	Karnataka	0

Dr
07/05/22

```
mysql> select * from Client_Master1 where City='Mumbai' ;
```

CL NAME	CITY	PINCODE	STATE	BALDUE
C1 Ivan Bayross	Mumbai	400054	Maharashtra	15000
C3 Chhaya Bankar	Mumbai	400057	Maharashtra	5000

```
mysql> update Client_Master1 set BalDue=1000 where ClientNo='C1';
```

1 row updated.

```
mysql> select * from Client_Master1;
```

CL NAME	CITY	PINCODE	STATE	BALDUE
C1 Ivan Bayross	Mumbai	400054	Maharashtra	1000
C2 Mamtamuzumdar	Madras	780001	Tamil nadu	0
C3 Chhaya Bankar	Mumbai	400057	Maharashtra	5000
C4 Ashwini Joshi	Banglore	560001	Karnataka	0

Perform a query in MySQL to join a table using self join, Inner join, Outer join(Left Outer, Right Outer).

Enter password: ****

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 10

Server version: 5.0.67-community-nt MySQL Community Edition (GPL)

Type 'help,' or 'h' for help. Type 'c' to clear the buffer.

mysql> use Information;

Database changed

mysql> create table officer(officer_id int(2),officer_name char(40),address char(50));

Query OK, 0 rows affected (0.05 sec)

mysql> desc officer;

Field	Type	Null	Key	Default	Extra
officer_id	int(2)	YES		NULL	
officer_name	char(40)	YES		NULL	
address	char(50)	YES		NULL	

3 rows in set (0.02 sec)

mysql> insert into officer(Officer_id,officer_name,address) values(1,'Priya','Amravati');

Query OK, 1 row affected (0.03 sec)

mysql> insert into officer(officer_id,officer_name,address) values(2,'Dnyaneshwar','Yavatmal');

Query OK, 1 row affected (0.03 sec)

mysql> insert into officer(officer_id,officer_name,address) values(3,'Sampada','Pune');

Query OK, 1 row affected (0.03 sec)

mysql> insert into officer(officer_id,officer_name,address) values(4,'Radhika','Akola');

Query OK, 1 row affected (0.03 sec)

Chandu
17/10/2022

```
mysql> desc officer;
```

Field	Type	Null	Key	Default	Extra
officer_id	int(2)	YES		NULL	
officer_name	char(40)	YES		NULL	
address	char(50)	YES		NULL	

3 rows in set (0.00 sec)

```
mysql> select * from officer;
```

officer_id	officer_name	address
1	Priya	Amravati
2	Dnyaneshwari	Yavatmal
3	Sampada	Pune
4	Radhika	Akola

4 rows in set (0.00 sec)

```
mysql> create table student(student_id int(2),student_name char(40),address char(50));
```

Query OK, 0 rows affected (0.05 sec)

```
mysql> desc student;
```

Field	Type	Null	Key	Default	Extra
student_id	int(2)	YES		NULL	
student_name	char(40)	YES		NULL	
address	char(50)	YES		NULL	

3 rows in set (0.01 sec)

```
mysql> drop table student;
```

Query OK, 0 rows affected (0.03 sec)

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```
mysql> desc student;
```

Field	Type	Null	Key	Default	Extra
student_id	int(2)	YES		NULL	
student_name	char(40)	YES		NULL	
course	char(10)	YES		NULL	

3 rows in set (0.00 sec)

```
mysql> insert into student(student_id,student_name,course) values(1,'Achal','Physics');
```

Query OK, 1 row affected (0.03 sec)

```
mysql> insert into student(student_id,student_name,course) value(2,'Anjali','Computer');
```

Query OK, 1 row affected (0.03 sec)

```
mysql> insert into student(student_id,student_name,course) value(3,'Mahi','Chemistry');
```

Query OK, 1 row affected (0.03 sec)

```
ress char  
mysql> desc student;
```

Field	Type	Null	Key	Default	Extra
student_id	int(2)	YES		NULL	
student_name	char(40)	YES		NULL	
course	char(10)	YES		NULL	

3 rows in set (0.00 sec)

```
mysql> select * from student;
```

student_id	student_name	course
1	Achal	Physics
2	Anjali	Computer
3	Mahi	Chemistry

3 rows in set (0.00 sec)

```
mysql> select officer.officer_name,address,course from officer INNER JOIN student  
on officer.officer_id=student.student_id;
```

officer_name	address	course
Priya	Amravati	Physics
Dnyaneshwari	Yavatmal	Computer
Sampada	Pune	Chemistry

3 rows in set (0.00 sec)

```
mysql> select officer.officer_name,address,course,student.student_id from officer  
RIGHT JOIN student on officer.officer_id=student.student_id;
```

officer_name	address	course	student_id
Priya	Amravati	Physics	1
Dnyaneshwari	Yavatmal	Computer	2
Sampada	Pune	Chemistry	3

3 rows in set (0.00 sec)

```
mysql> select officer_name,officer.address,course from officer LEFT JOIN student  
on officer.officer_id=student.student_id;
```

officer_name	address	course
Priya	Amravati	Physics
Dnyaneshwari	Yavatmal	Computer
Sampada	Pune	Chemistry
Radhika	Akola	NULL

4 rows in set (0.00 sec)

Chauhan
7/05/22

Department of Computer Science

18. Write MySQL query using LIKE operator.

MySQL>CREATE TABLE CLIENT_MASTER(CLIENTNO varchar2(6),NAME varchar2(20),CITY varchar2(15),PINCODE number(8),STATE varchar2(15),BALDUE number(10,2));
Table created.

MySQL> select * from CLIENT_MASTER;

CLIENT NAME	CITY	PINCODE STATE	BALDUE
C00001 IVAN BAYROSS	MUMBAI	400054 MAHARASHTRA	15000
C00002 MAMTA MUZUMDAR	MADRAS	780001 TAMIL NADU	0
C00003 CHHAYA BANKAR	MUMBAI	400057 MAHARASHTRA	5000
C00004 ASHWINI JOSHI	BANGALORE	560001 KARNATAKA	0
C00005 HANSEL COLACO	MUMBAI	400060 MAHARASHTRA	2000
C00006 DEEPAK SHARMA	MANGALORE	560050 KARNATAKA	0

6 rows selected.

MySQL> SELECT * FROM CLIENT_MASTER WHERE NAME LIKE 'M%';

CLIENT NAME	CITY	PINCODE	STATE	BALDUE
C00002 MAMTA MUZUMDAR	MADRAS	780001	TAMIL NADU	0

1 row selected.

MySQL> SELECT * FROM CLIENT_MASTER WHERE NAME LIKE '_A%';

CLIENT NAME	CITY	PINCODE STATE	BALDUE
C00002 MAMTA MUZUMDAR	MADRAS	780001 TAMIL NADU	0
C00005 HANSEL COLACO	MUMBAI	400060 MAHARASHTRA	2000

2 rows selected.

MySQL> SELECT * FROM CLIENT_MASTER WHERE STATE LIKE 'M%';

CLIENT NAME	CITY	PINCODE STATE	BALDUE
C00001 IVAN BAYROSS	MUMBAI	400054 MAHARASHTRA	15000
C00003 CHHAYA BANKAR	MUMBAI	400057 MAHARASHTRA	5000
C00005 HANSEL COLACO	MUMBAI	400060 MAHARASHTRA	2000

3 rows selected.

17/05/2022

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19. Write a query create object using reference type table.

1. Create type Address_Ty consisting of the following columns.

```
SQL> create type ADDRESS1_TY as object(Address1 varchar2(30),Address2 varchar2(30),City  
varchar2(20),Pincode number,State varchar2(20));  
2 /  
Type created.
```

```
SQL> desc ADDRESS1_TY;
```

Name	Null?	Type
ADDRESS1		VARCHAR2(30)
ADDRESS2		VARCHAR2(30)
CITY		VARCHAR2(20)
PINCODE		NUMBER
STATE		VARCHAR2(20)

2. Create the table Salesman_Master as described.

```
SQL> create table Salesman_Master(Salesman_no varchar2(6),Salesman_name  
varchar2(20),Address ADDRESS1_TY,SalAMT number(8,2),SaleTrgt number(6,2),SaleAchvd  
number(6,2),Remark varchar2(60));  
Table created.
```

```
SQL> desc Salesman_Master;
```

Name	Null?	Type
SALESMAN_NO		VARCHAR2(6)
SALESMAN_NAME		VARCHAR2(20)
ADDRESS		ADDRESS1_TY
SALEMAT		NUMBER(8,2)
SALETRGT		NUMBER(6,2)
SALEACHVD		NUMBER(6,2)
REMARK		VARCHAR2(60)

21/05/22

3. Insert the given data into table Salesman_Master.

```
SQL> insert into Salesman_Master values('S01','Aman',ADDRESS1_TY('A/14','Worli',  
'Mumbai',400002,'Maharashtra'),3000,100,50,'Good');  
1 row created.
```

```
SQL> insert into Salesman_Master values('S02','Omkar',ADDRESS1_TY(65,'Nariman',
```

```
'Mumbai',400001,'Maharashtra'),3000,200,100,'Good');
```

1 row created.

```
SQL> insert into Salesman_Mastervalues('S03','Raj',ADDRESS1_TY('P7','Bandra',
```

```
'Mumbai',400032,'Maharashtra'),3000,200,100,'Good');
```

1 row created.

```
SQL> insert into Salesman_Mastervalues('S04','Bhavesh',ADDRESS1_TY('A/5','Juhu',
```

```
'Bombay',400044,'Maharashtra'),3500,200,150,'Good');
```

1 row created.

```
SQL> select * from Salesman_Master;
```

SALEM	SALESMAN_NAME	ADDRESS	(ADDRESS1,ADDRESS2, CITY, PINCODE, STATE)
S01	Aman	ADDRESS1_TY	('A/14', 'Worli', 'Mumbai', 400002, 'Maharashtra')
S02	Omkar	ADDRESS1_TY	('65', 'Nariman', 'Mumbai', 400001, 'Maharashtra')
S03	Raj	ADDRESS1_TY	('P-7', 'Bandra', 'Mumbai', 400032, 'Maharashtra')
S04	Bhavesh	ADDRESS1_TY	('A/5', 'Juhu', 'Bombay', 400044, 'Maharashtra')

SALAMT	SALETRGT	SALEACHVD	REMAR
3000	100	50	Good
3000	200	100	Good
3000	200	100	Good
3500	200	150	Good

4. Exercise on records from table.

➤ Query NO. 1 : Retrieve the list of city and state from Salesman_Master.

```
SQL> select sales.address.city,sales.address.state from Salesman_Master sales;
```

ADDRESS.CITY	ADDRESS.STATE
Mumbai	Maharashtra
Mumbai	Maharashtra
Mumbai	Maharashtra
Bombay	Maharashtra

Query No. 2: Change the city value for salesman who live in Bombay to Chennai.

```
SQL> update Salesman_Master Sales SET Sales.Address.city='Chennai' where  
Sales.Address.city='Bombay';
```

4 rows updated.

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SQL> select Salesman_no,Salesman_name,Sales.Address.city from Salesman_Master Sales;

SALESM	SALESMAN_NAME	ADDRESS.CITY
S01	Aman	Mumbai
S02	Omkar	Mumbai
S03	Raj	Mumbai
S04	Bhavesh	Chennai

➤ **Query No. 3 : Delete the record for the salesman who lives in Chennai.**

SQL> delete from Salesman_Master Sales where Sales.Address.city='Chennai';
1 row deleted.

SQL> select Salesman_no,Salesman_name,Sales.Address.city from Salesman_Master Sales;

SALESM	SALESMAN_NAME	ADDRESS.CITY
S01	Aman	Mumbai
S02	Omkar	Mumbai
S03	Raj	Mumbai

5. Create type object as described below.

➤ **Query No. 1 : Create type Dependent_Ty consisting of the following columns.**

SQL> create type Dependent_Ty as object(Relation varchar2(15),Age number);
2 /

Type created.

Name	Null?	Type
RELATION		VARCHAR2(15)
AGE		NUMBER

- **Query No. 2 : Create nested table Dependent_List consisting of Dependent_Ty .**

```
SQL>create type Dependent_list as Table of Dependent_Ty;  
2 /  
Type created.
```

- Query No. 3 : Create type Salesman_info_ty with the following columns .**

```
SQL> create type Salesman_info_ty as object(id number(5),Name varchar2(20),Dependents  
Dependent_list);  
2 /  
Type created.
```

```
SQL>descSalesman_info_ty;  
Name Null? Type  
ID NUMBER(5)  
NAME VARCHAR2(20)  
DEPENDENTS DEPENDENT_LIST
```

- **Query No. 4 : Create the table Salesman_info of the TYPE Salesman_info_ty .**

```
SQL> create table Salesman_info of Salesman_info_ty nested table Dependents store as  
Dependents_ty;
```

Table created.

✓
21-05-22