Advanced Database Management Systems LAB
(Assignment 3)

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BATCH : B4

Title : To understand DDL and DML commands

Objective: To understand the concept of designing issue related to the database with creating, populating the tables. Also familiarizing with different ways of manipulation in database.

- **Create the tables described below:**

1) Table name: CLIENT_MASTER
Description: used to store client information

CODE :

Create table CLIENT_MASTER
(
CLIENT_NO varchar(6),
NAME varchar(20),
ADDRESS1 varchar(30),
ADDRESS2 varchar(30),
CITY varchar(15),
PINCODE int,
STATE varchar(15),
BALDUE number(10, 2)
);
Desc CLIENT_MASTER;

Table created.

TABLE CLIENT_MASTER

Column	Null?	Type
CLIENT_NO	-	VARCHAR2(6)
NAME	-	VARCHAR2(20)
ADDRESS1	-	VARCHAR2(30)
ADDRESS2	-	VARCHAR2(30)
CITY	-	VARCHAR2(15)
PINCODE	-	NUMBER
STATE	-	VARCHAR2(15)
BALDUE	-	NUMBER(10,2)

Download CSV
8 rows selected.

2) Table Name: PRODUCT_MASTER

Description: Used to store product information

CODE :

```
create table Product_Master(
ProductNO varchar(6),
Description varchar(15),
Profitpercent number(4, 2),
Unitmeasure varchar(10),
QuantityOnhand int,
ReorderLevel int,
SellPrice number(8, 2),
CostPrice number(8, 2)
);
Desc Product_Master
```

OUTPUT :

Table created.

TABLE PRODUCT_MASTER

Column	Null?	Type
PRODUCTNO	-	VARCHAR2(6)
DESCRIPTION	-	VARCHAR2(15)
PROFITPERCENT	-	NUMBER(4,2)
UNITMEASURE	-	VARCHAR2(10)
QUANTITYONHAND	-	NUMBER
REORDERLEVEL	-	NUMBER
SELLPRICE	-	NUMBER(8,2)
COSTPRICE	-	NUMBER(8,2)

Download CSV
8 rows selected.

3) Table name: salesman_master
Description: Used to store salesman information working for the company.

CODE :

```
create table salesman_master (
SalesmanNo varchar(6),
SalesmanName varchar(20),
ADDRESS1 varchar(30),
ADDRESS2 varchar(30),
CITY varchar(20),
PINCODE int,
STATE varchar(20),
SalAmt int,
TgtToGet int,
SalAmt int,
YtdSales int,
```

Remarkds varchar(60)
);
desc salesman_master;

TABLE SALESMAN_MASTER

Column	Null?	Type
SALESMANNO	-	VARCHAR2(6)
SALESMANNAME	-	VARCHAR2(20)
ADDRESS1	-	VARCHAR2(30)
ADDRESS2	-	VARCHAR2(30)
CITY	-	VARCHAR2(20)
PINCODE	-	NUMBER
STATE	-	VARCHAR2(20)
SALAMT	-	NUMBER
TGTTOGET	-	NUMBER
YTDSALES	-	NUMBER
REMARKS	-	VARCHAR2(60)

● Insert the following data into their respective tables:

1) Data for CLIENT_MASTER table:

CODE :

Insert into CLIENT_MASTER values('C00001', 'Ivan bayross', 'Address1', 'Address2', 'Mumbai', 400054, 'Maharastra', 15000);
Insert into CLIENT_MASTER values('C00002', 'Mamta muzumdar', 'Address1', 'Address2', 'Madras', 780001, 'Tamil Nadu', 0);
Insert into CLIENT_MASTER values('C00003', 'Chhaya bankar', 'Address1', 'Address2', 'Mumbai', 400054, 'Maharastra', 5000);

Insert into CLIENT_MASTER values('C00004', 'Ashwini joshi', 'Address1', 'Address2', 'Banglore', 560001, 'Karnataka', 0);
Insert into CLIENT_MASTER values('C00005', 'Hansel colaco', 'Address1', 'Address2', 'Mumbai', 400054, 'Maharastra', 2000);
Insert into CLIENT_MASTER values('C00006', 'Deepak sharma', 'Address1', 'Address2', 'Manglore', 400054, 'karnataka', 15000);

select * from CLIENT_MASTER;

OUTPUT :

```
1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.
```

CLIENT_NO	NAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	BALDUE
C00001	Ivan bayross	Address1	Address2	Mumbai	400054	Maharastra	15000
C00002	Mamta muzumdar	Address1	Address2	Madras	780001	Tamil Nadu	0
C00003	Chhaya bankar	Address1	Address2	Mumbai	400054	Maharastra	5000
C00004	Ashwini joshi	Address1	Address2	Banglore	560001	Karnataka	0
C00005	Hansel colaco	Address1	Address2	Mumbai	400054	Maharastra	2000
C00006	Deepak sharma	Address1	Address2	Manglore	400054	karnataka	15000

Download CSV
6 rows selected.

2) Data for Product_Master table:

CODE :

insert into product_master values('P00001', 'T-Shirts', 5, 'Piece', 200, 50, 350, 250);
insert into product_master values('P0345', 'Shirts', 6, 'Piece', 150, 50, 500, 350);
insert into product_master values('P06734', 'Cotton Jeans', 5, 'Piece', 100, 20, 600, 450);
insert into product_master values('P07865', 'Jeans', 5, 'Piece', 100, 20, 750, 500);
insert into product_master values('P07868', 'Trousers', 2, 'Piece', 150, 50, 850, 550);
insert into product_master values('P07885', 'Pull Overs', 2.5, 'Piece', 150, 50, 850, 550);

insert into product_master values('P07868', 'Denim Shirts', 4, 'Piece', 100, 40, 350, 250);
insert into product_master values('P07868', 'Lycra Tops', 5, 'Piece', 70, 30, 300, 175);
insert into product_master values('P07868', 'Skirts', 5, 'Piece', 75, 30, 450, 300);

select* from Product_Master

OUTPUT :

PRODUCTNO	DESCRIPTION	PROFITPERCENT	UNITMEASURE	QUANTITYONHAND	REORDERLEVEL	SELLPRICE	COSTPRICE
P00001	T-Shirts	5	Piece	200	50	350	250
P0345	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	150	50	850	550
P07868	Denim Shirts	4	Piece	100	40	350	250
P07868	Lycra Tops	5	Piece	70	30	300	175
P07868	Skirts	5	Piece	75	30	450	300

3) Data for salesman_master table:

CODE :

insert into salesman_master
values('S00001', 'Aman', 'A/14', 'Worli', 'Mumbai', 400002, 'Maharashtra', 3000, 100, 50, 'Good');

insert into salesman_master
values('S00002', 'Omkar', '65', 'Nariman', 'Mumbai', 400001, 'Maharashtra', 3000, 200, 100, 'Good');

insert into salesman_master
values('S00003', 'Raj', 'P-7', 'Bandra', 'Mumbai', 400032, 'Maharashtra', 3000, 200, 100, 'Good');

insert into salesman_master
values('S00004', 'Ashish', 'A/5', 'Juhu', 'Mumbai', 400044, 'Maharashtra', 3500, 200, 150, 'Good');

select * from salesman_master;

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

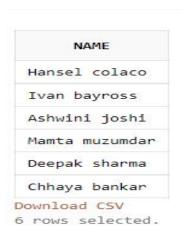| SALESMANNO	SALESMANNAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	SALAMT	TGTTOGET	YTDSALES	REMARKS
S00001	Aman	A/14	Worli	Mumbai	400002	Maharashtra	3000	100	50	Good
S00002	Omkar	65	Nariman	Mumbai	400001	Maharashtra	3000	200	100	Good
S00003	Raj	P-7	Bandra	Mumbai	400032	Maharashtra	3000	200	100	Good
S00004	Ashish	A/5	Juhu	Mumbai	400044	Maharashtra	3500	200	150	Good

Download CSV
4 rows selected.

● Exercise on retrieving records from a table.

1) . Find out the names of all the clients.

CODE :

select distinct Name from CLIENT_MASTER;

OUTPUT :

NAME
Hansel colaco
Ivan bayross
Ashwini joshi
Mamta muzumdar
Deepak sharma
Chhaya bankar

Download CSV
6 rows selected.

2). Retrieve the entire contents of the Client_Master table.

CODE :

Insert into CLIENT_MASTER values('C00001', 'Ivan bayross','Address1','Address2', 'Mumbai', 400054, 'Maharashtra', 15000);
Insert into CLIENT_MASTER values('C00002', 'Mamta muzumdar', 'Address1','Address2','Madras', 780001, 'Tamil Nadu', 0);
Insert into CLIENT_MASTER values('C00003', 'Chhaya bankar', 'Address1','Address2','Mumbai', 400054, 'Maharashtra', 5000);
Insert into CLIENT_MASTER values('C00004', 'Ashwini joshi', 'Address1','Address2','Bangalore', 560001, 'Karnataka', 0);
Insert into CLIENT_MASTER values('C00005', 'Hansel colaco', 'Address1','Address2','Mumbai', 400054, 'Maharashtra', 2000);
Insert into CLIENT_MASTER values('C00006', 'Deepak sharma', 'Address1','Address2','Mangalore', 560050, 'Karnataka', 0);

select * from CLIENT_MASTER;

OUTPUT :

CLIENTNO	NAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	BALDUE
C00001	Ivan bayross	Address1	Address2	Mumbai	400054	Maharashtra	15000
C00002	Mamta muzumdar	Address1	Address2	Madras	780001	Tamil Nadu	0
C00003	Chhaya bankar	Address1	Address2	Mumbai	400054	Maharashtra	5000
C00004	Ashwini joshi	Address1	Address2	Bangalore	560001	Karnataka	0
C00005	Hansel colaco	Address1	Address2	Mumbai	400054	Maharashtra	2000
C00006	Deepak sharma	Address1	Address2	Mangalore	560050	Karnataka	0

3). Retrieve the list of names, city and the state of all the clients.

CODE :

select Name, City, State from CLIENT_MASTER;

NAME	CITY	STATE
Ivan bayross	Mumbai	Maharastra
Mamta muzumdar	Madras	Tamil Nadu
Chhaya bankar	Mumbai	Maharastra
Ashwini joshi	Banglore	Karnataka
Hansel colaco	Mumbai	Maharastra
Deepak sharma	Manglore	karnataka

4). List the various products available from the Product_Master table.

CODE :

select distinct Description from Product_Master;

OUTPUT :

DESCRIPTION
Cotton Jeans
T-Shirts
Skirts
Trousers
Lycra Tops
Pull Overs
Jeans
Shirts
Denim Shirts

5). List all the clients who are located in Mumbai.

CODE :

select * from client_master where City = 'Mumbai';

CLIENT_NO	NAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	BALDUE
C00001	Ivan bayross	Address1	Address2	Mumbai	400054	Maharastra	15000
C00003	Chhaya bankar	Address1	Address2	Mumbai	400054	Maharastra	5000
C00005	Hansel colaco	Address1	Address2	Mumbai	400054	Maharastra	2000

6). Find the names of salesman who have a salary equal to Rs.3000.

CODE :

select SalesmanName from salesman_master where SalAmt=3000;

OUTPUT :

SALESMANNAME
Aman
Omkar
Raj

● **Exercise on updating records in a table**

1). Change the city of ClientNo 'C00005' to 'Bangalore'.

CODE :

update CLIENT_MASTER set CITY = 'Bangalore' where CLIENTNO = 'C00005';
select*from CLIENT_MASTER;

C00001	Ivan bayross	Address1	Address2	Mumbai	400054	Maharashtra	1000
C00002	Mamta muzumdar	Address1	Address2	Madras	780001	Tamil Nadu	0
C00003	Chhaya bankar	Address1	Address2	Mumbai	400054	Maharashtra	5000
C00004	Ashwini joshi	Address1	Address2	Bangalore	560001	Karnataka	0
C00005	Hansel colaco	Address1	Address2	Bangalore	400054	Maharashtra	2000
C00006	Deepak sharma	Address1	Address2	Mangalore	560050	Karnataka	0

2). Change the BalDue of ClientNo 'C00001' to Rs.1000.

CODE :

update CLIENT_MASTER set BALDUE = 1000 where CLIENTNO = 'C00001';
select*from CLIENT_MASTER;

OUTPUT :

CLIENTNO	NAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	BALDUE
C00001	Ivan bayross	Address1	Address2	Mumbai	400054	Maharashtra	1000
C00002	Mamta muzumdar	Address1	Address2	Madras	780001	Tamil Nadu	0
C00003	Chhaya bankar	Address1	Address2	Mumbai	400054	Maharashtra	5000
C00004	Ashwini joshi	Address1	Address2	Bangalore	560001	Karnataka	0
C00005	Hansel colaco	Address1	Address2	Bangalore	400054	Maharashtra	2000
C00006	Deepak sharma	Address1	Address2	Mangalore	560050	Karnataka	0

3). Change the cost price of 'Trousers' to rs.950.00.

CODE :

update Product_Master set CostPrice=950 where Description='Trousers';
select * from Product_Master;

PRODUCTNO	DESCRIPTION	PROFITPERCENT	UNITMEASURE	QUANTITYONHAND	REORDERLEVEL	SELLPRICE	COSTPRICE
P00001	T-Shirts	5	Piece	200	50	350	250
P0345	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	950
P07885	Pull Overs	2.5	Piece	150	50	850	550
P07868	Denim Shirts	4	Piece	100	40	350	250
P07868	Lycra Tops	5	Piece	70	30	300	175
P07868	Skirts	5	Piece	75	30	450	300

4). Change the city of the salesman to Pune.

CODE :

update salesman_master set City = 'Pune';

OUTPUT :

SALESMANNO	SALESMANNAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	SALAMT	TGTTOGET	YTDSALES	REMARKS
S00001	Aman	A/14	Worli	pune	400002	Maharashtra	3000	100	50	Good
S00002	Omkar	65	Nariman	pune	400001	Maharashtra	3000	200	100	Good
S00003	Raj	P-7	Bandra	pune	400032	Maharashtra	3000	200	100	Good
S00004	Ashish	A/5	Juhu	pune	400044	Maharashtra	3500	200	150	Good

● **Exercise on deleting records in a table**

1). Delete all salesman from the Salesman_Master whose salaries are equal to Rs.3500.

delete from salesman_master where SalAmt = 3500;

SALESMANNO	SALESMANNAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	SALAMT	TGTTOGET	YTDSALES	REMARKS
S00001	Aman	A/14	Worli	pune	400002	Maharashtra	3000	100	50	Good
S00002	Omkar	65	Nariman	pune	400001	Maharashtra	3000	200	100	Good
S00003	Raj	P-7	Bandra	pune	400032	Maharashtra	3000	200	100	Good

2) . Delete all products from Product_Master where the quantity on hand is equal to 100.

delete from Product_Master where QuantityOnhand=100;
select* from Product_Master;

PRODUCTNO	DESCRIPTION	PROFITPERCENT	UNITMEASURE	QUANTITYONHAND	REORDERLEVEL	SELLPRICE	COSTPRICE
P00001	T-Shirts	5	Piece	200	50	350	250
P0345	Shirts	6	Piece	150	50	500	350
P07868	Trousers	2	Piece	150	50	850	550
P07885	Pull Overs	2.5	Piece	150	50	850	550
P07868	Lycra Tops	5	Piece	70	30	300	175
P07868	Skirts	5	Piece	75	30	450	300

3). Delete from Client_Master where the column state holds the value 'Tamil Nadu'.

CODE :

delete from CLIENT_MASTER where STATE = 'Tamil Nadu';
select*from CLIENT_MASTER

OUTPUT :

CLIENT_NO	NAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	BALDUE
C00001	Ivan bayross	Address1	Address2	Mumbai	400054	Maharastra	15000
C00003	Chhaya bankar	Address1	Address2	Mumbai	400054	Maharastra	5000
C00004	Ashwini joshi	Address1	Address2	Banglore	560001	Karnataka	0
C00005	Hansel colaco	Address1	Address2	Mumbai	400054	Maharastra	2000
C00006	Deepak sharma	Address1	Address2	Manglore	400054	karnataka	15000

● **Exercise on altering the table structure**

1). Add a column called 'Telephone' of data type integer to the Client_Master table.

CODE :

alter table CLIENT_MASTER add TELEPHONE int;
desc CLIENT_MASTER;

OUTPUT :

TABLE CLIENT_MASTER

Column	Null?	Type
CLIENT_NO	–	VARCHAR2(6)
NAME	–	VARCHAR2(20)
ADDRESS1	–	VARCHAR2(30)
ADDRESS2	–	VARCHAR2(30)
CITY	–	VARCHAR2(15)
PINCODE	–	NUMBER
STATE	–	VARCHAR2(15)
BALDUE	–	NUMBER(10,2)
TELEPHONE	–	NUMBER

Download CSV
9 rows selected.

2). Change the size off SellPrice column in Product _Master to 10, 2.

CODE :

alter table Product_Master modify SellPrice number(10, 2);
desc Product_Master;

OUTPUT :

TABLE PRODUCT_MASTER

Column	Null?	Type
PRODUCTNO	-	VARCHAR2(6)
DESCRIPTION	-	VARCHAR2(15)
PROFITPERCENT	-	NUMBER(4,2)
UNITMEASURE	-	VARCHAR2(10)
QUANTITYONHAND	-	NUMBER
REORDERLEVEL	-	NUMBER
SELLPRICE	-	NUMBER(10,2)
COSTPRICE	-	NUMBER(8,2)

- **Exercise on deleting the table structure along with the data**

1). Destroy the table Client_Master along with its data.

CODE :

drop table CLIENT_MASTER;
desc CLIENT_MASTER;

OUTPUT :

Table dropped.

ORA-20001: object CLIENT_MASTER does not exist

- **Exercise on renaming the table**

1). Change the name of the Salesman_Master to sman_mast.

alter table salesman_master rename to sman_mast;
desc sman_mast;

OUTPUT :

TABLE SMAN_MAST

Column	Null?	Type
SALESMANNO	-	VARCHAR2(6)
SALESMANNAME	-	VARCHAR2(20)
ADDRESS1	-	VARCHAR2(30)
ADDRESS2	-	VARCHAR2(30)
CITY	-	VARCHAR2(20)
PINCODE	-	NUMBER
STATE	-	VARCHAR2(20)
SALAMT	-	NUMBER
TGTTOGET	-	NUMBER
YTDSALES	-	NUMBER
REMARKS	-	VARCHAR2(60)

>>> END <<<