**Experiment 8**

**Creating the Database**

CREATE DATABASE DBMS\_Lab3;

use DBMS\_Lab3;

**Creating the Tables**

CREATE TABLE client\_master(client\_no VARCHAR(6) PRIMARY KEY, name VARCHAR(20), address\_1 VARCHAR(30), address\_2 VARCHAR(30), city VARCHAR(15), pincode NUMERIC(6), state VARCHAR(15), bal\_due NUMERIC(10,2));

CREATE TABLE product\_master(product\_no VARCHAR(6) PRIMARY KEY, description VARCHAR(20), profit\_percent NUMERIC, unit\_measure VARCHAR(10), qty\_on\_hand NUMERIC, reorder\_lv1 NUMERIC, sell\_price NUMERIC, cost\_price NUMERIC);

insert into client\_master values('0001', 'Ivan', '', '', 'Bombay', 400054, 'Maharashtra', 1500);

insert into client\_master values('0002', 'Vandana', '', '', 'Madras', 780001, 'Tamilnadu', 0);

insert into client\_master values('0003', 'Pramada', '', '', 'Bombay', 400057, 'Maharashtra', 5000);

insert into client\_master values('0004', 'Basu', '', '', 'Bombay', 400056, 'Maharashtra', 0);

insert into client\_master values('0005', 'Ravi', '', '', 'Delhi', 100001, ' ' , 2000);

insert into client\_master values('0006', 'Rukmini', '', '', 'Bombay', 400050, 'Maharashtra', 0);

insert into product\_master values('P00001', '1.44floppies', 5, 'piece', 100, 20, 525, 500);

insert into product\_master values('P03453', 'Monitors', 6, 'piece', 10, 3, 12000, 11200);

insert into product\_master values('P06734', 'Mouse', 5, 'piece', 20, 5, 1050, 500);

insert into product\_master values('P07865', '1.22 floppies', 5, 'piece', 100, 20, 525, 500);

insert into product\_master values('P07868', 'Keyboards', 2, 'piece', 10, 1500, 3150, 3050);

insert into product\_master values('P07885', 'CD Drive', 2.5, 'piece', 10, 3, 5250, 5100);

insert into product\_master values('P07965', '540 HDD', 4, 'piece', 10, 3, 8400, 8000);

insert into product\_master values('P07975', '1.44 Drive', 5, 'piece', 10, 3, 1050, 1000);

insert into product\_master VALUES('P08865', '1.22 Drive' , 5, 'piece', 2, 3, 1050, 1000);

create table Sales\_master(Salesman\_no VARCHAR(6) NOT NULL PRIMARY KEY CHECK(Salesman\_no LIKE 'S%'), Sal\_name VARCHAR(20) NOT NULL,

Address VARCHAR(30) NOT NULL,

City VARCHAR(20), Pincode NUMERIC(6), State VARCHAR(20),

Sal\_amt NUMERIC(8,2) NOT NULL CHECK(Sal\_amt > 0),

Tgt\_to\_get NUMERIC(6,2) NOT NULL CHECK(Tgt\_to\_get > 0),

Ytd\_sales NUMERIC(6,2) NOT NULL CHECK(Ytd\_sales > 0), Remarks Varchar(30));

Insert into Sales\_master values('S00001','Kiran','A/14 worli','Bombay',400002,'Mah',3000,100,50,'Good');

Insert into Sales\_master values('S00002','Manish','65,nariman','Bombay',400001,'Mah',3000,200,100,'Good');

Insert into Sales\_master values('S00003','Ravi','P-7 Bandra','Bombay',400032,'Mah',3000,200,100,'Good');

Insert into Sales\_master values('S00004','Ashish','A/5 Juhu','Bombay',400044,'Mah',3000,200,150,'Good');

create table Sales\_order(S\_order\_no VARCHAR(6) NOT NULL PRIMARY KEY CHECK(S\_order\_no like 'O%'), S\_order\_date DATE,

Client\_no VARCHAR(6) REFERENCES client\_master(client\_no), Dely\_add VARCHAR(6),

salesman\_no VARCHAR(6) REFERENCES Sales\_master(Salesman\_no),

Dely\_type CHAR(1) DEFAULT 'f' CHECK(Dely\_type = 'f' OR Dely\_type = 'p'),

Billed\_yn CHAR(1), Dely\_date DATE,

Order\_status VARCHAR(10), CHECK(Order\_status IN ('in process','fulfilled','back order','canceled')),

CONSTRAINT Dely\_date CHECK(Dely\_date >= S\_order\_date));

insert into Sales\_order values('O19001','1996-01-12','0001','NULL','S00001','f','n','1996-01-20','in process');

insert into Sales\_order values('O19002','1996-01-25','0002','NULL','S00002','p','n','1996-01-27','canceled');

insert into Sales\_order values('O16865','1996-02-18','0003','NULL','S00003','f','y','1996-02-20','fulfilled');

insert into Sales\_order values('O19003','1996-04-03','0001','NULL','S00001','f','y','1996-04-07','fulfilled');

insert into Sales\_order values('O46866','1996-05-20','0004','NULL','S00002','p','n','1996-05-22','canceled');

insert into Sales\_order values('O10008','1996-05-24','0005','NULL','S00004','f','n','1996-05-26','in process');

create table Sales\_order\_details(s\_order\_no VARCHAR(6) REFERENCES Sales\_order(S\_order\_no),

Product\_no VARCHAR(6) REFERENCES product\_master(product\_no),

Qty\_order NUMERIC(8), Qty\_disp NUMERIC(8), Product\_rate NUMERIC(10,2), PRIMARY KEY(S\_order\_no,Product\_no));

INSERT into Sales\_order\_details values('O19001','P00001',4,4,525);

INSERT into Sales\_order\_details values('O19001','P07965',2,1,8400);

INSERT into Sales\_order\_details values('O19001','P07885',2,1,5250);

INSERT into Sales\_order\_details values('O19002','P00001',10,0,525);

INSERT into Sales\_order\_details values('O16865','P07868',3,3,3150);

INSERT into Sales\_order\_details values('O16865','P07885',10,10,5250);

INSERT into Sales\_order\_details values('O19003','P00001',4,4,1050);

INSERT into Sales\_order\_details values('O19003','P03453',2,2,1050);

INSERT into Sales\_order\_details values('O46866','P06734',1,1,12000);

INSERT into Sales\_order\_details values('O46866','P07965',1,0,8400);

INSERT into Sales\_order\_details values('O10008','P07975',1,0,1050);

INSERT into Sales\_order\_details values('O10008','P00001',10,5,525);

create table Challan\_Header(Challan\_no varchar(6) primary key, s\_order\_no varchar(6) references Sales\_order(S\_order\_no),

challan\_date date not NULL, billed\_yn char(1) default 'N' check(billed\_yn = 'Y' or billed\_yn = 'N'));

insert into Challan\_Header values('CH9001','O19001','1995-12-12','Y');

insert into Challan\_Header values('CH6865','O46866','1995-11-12','Y');

insert into Challan\_Header values('CH3965','O10008','1995-10-12','Y');

create table Challan\_Details(Challan\_no VARCHAR(6) references Challan\_Header(Challan\_no),

Product\_no varchar(6), constraint FK\_product\_cd\_prodmaster foreign key(Product\_no) references product\_master(product\_no),

Qty\_disp NUMERIC(4,2) not NULL);

insert into Challan\_Details values('CH9001','P00001',4);

insert into Challan\_Details values('CH9001','P07965',1);

insert into Challan\_Details values('CH9001','P07885',1);

insert into Challan\_Details values('CH6865','P07868',3);

insert into Challan\_Details values('CH6865','P03453',4);

insert into Challan\_Details values('CH6865','P00001',10);

insert into Challan\_Details values('CH3965','P00001',5);

insert into Challan\_Details values('CH3965','P07975',2);

--Displaying Tables

select \* from client\_master;

select \* from product\_master;

select \* from Sales\_master;

select \* from Sales\_order;

select \* from Sales\_order\_details;

select \* from Challan\_Header;

select \* from Challan\_Details;

Queries

--Queries

--Query 1 to 6

--Query 1

drop index if exists [index\_cm] on [client\_master];

go

create index index\_cm on client\_master(client\_no);

EXEC sp\_helpindex 'dbo.client\_master';

GO

--Query 2

drop index if exists [index\_so] on [Sales\_order];

go

create index index\_so on Sales\_order(S\_order\_no);

EXEC sp\_helpindex 'dbo.Sales\_order';

GO

--Query 3

drop index if exists [index\_sod] on [Sales\_order\_details];

go

create index index\_sod on Sales\_order\_details(S\_order\_no,Product\_no);

EXEC sp\_helpindex 'dbo.Sales\_order\_details';

GO

--Query 4

drop index if exists [ch\_index] on [Challan\_Header];

go

create index ch\_index on Challan\_Header(Challan\_no,s\_order\_no);

EXEC sp\_helpindex 'dbo.Challan\_Header';

GO

--Query 5

drop index if exists [index\_sm] on [Sales\_master];

go

create unique index index\_sm on Sales\_master(Salesman\_no);

EXEC sp\_helpindex 'dbo.Sales\_master';

GO

--Query 6

drop index if exists [ch\_index] on [Challan\_Header];

go

EXEC sp\_helpindex 'dbo.Challan\_Header';

GO

--Query 7

--Query 7 Part 1

--DROP view if exists dbo.sales\_master\_view;

--go

create view Sales\_master\_view as select \* from Sales\_master where Sal\_amt < 3500;

--Query 7 Part 2

select \* from Sales\_master\_view;

--Query 8 to 10

--Query 8 Part 1

create view client\_view as select name as 'Name', address\_1 as 'Address\_1', address\_2 as'Address\_2', city as 'City', pincode as 'Pincode', state as 'State' from client\_master;

--Query 8 Part 2

select \* from client\_view;

--Query 9

select Name from client\_view where City = 'Bombay';

--Query 10

DROP view if exists dbo.client\_view;

Go

**Output**

**Queries 1 to 6**

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application

Description automatically generated



**Query 7**

Table

Description automatically generated

Table

Description automatically generated

**Query 8 to 10**

A picture containing table

Description automatically generated

Table

Description automatically generated

Graphical user interface, table

Description automatically generated

Table

Description automatically generated