=================================================

CREATE TABLE client\_master(

client\_no VARCHAR(6),

name VARCHAR(20) NOT NULL,

address1 VARCHAR(30),

address2 VARCHAR(30),

city VARCHAR(15),

state VARCHAR(15),

pincode NUMBER(6),

bal\_due NUMBER(10,2),

CONSTRAINT client\_no\_pk PRIMARY KEY(client\_no),

CONSTRAINT client\_no\_ck CHECK (client\_no LIKE 'C%')

);

============================================================

CREATE TABLE product\_master(

product\_no VARCHAR(6),

description VARCHAR(50) NOT NULL,

profit\_percent NUMBER(3,2) NOT NULL,

unit\_measure VARCHAR(10) NOT NULL,

record\_lvl NUMBER(8) NOT NULL,

sell\_price NUMBER(8,2) NOT NULL,

cost\_price NUMBER(8,2) NOT NULL,

CONSTRAINT product\_no\_pk PRIMARY KEY(product\_no),

CONSTRAINT product\_no\_ck CHECK (product\_no LIKE 'P%'),

CONSTRAINT sell\_price\_ck CHECK (sell\_price !=0),

CONSTRAINT cost\_price\_ck CHECK (cost\_price !=0)

);

============================================================

CREATE TABLE salesman\_master(

salesman\_no VARCHAR(6),

salesman\_name VARCHAR(20) NOT NULL,

address1 VARCHAR(30) NOT NULL,

address2 VARCHAR(30),

city VARCHAR(20),

pincode VARCHAR(6),

state VARCHAR(20),

sal\_amt NUMBER(8,2) NOT NULL,

tgt\_to\_get NUMBER(6,2) NOT NULL,

ytd\_sales NUMBER(6,2) NOT NULL,

remarks VARCHAR(60),

CONSTRAINT salesman\_no\_pk PRIMARY KEY(salesman\_no),

CONSTRAINT salesman\_no\_ck CHECK(salesman\_no LIKE 'S%'),

CONSTRAINT tgt\_to\_get\_ck CHECK(tgt\_to\_get !=0),

CONSTRAINT ytd\_sales\_ck CHECK(ytd\_sales !=0)

);

===========================================================

CREATE TABLE sales\_order(

s\_order\_no VARCHAR(6),

s\_order\_date DATE,

client\_no VARCHAR(6),

dely\_addr VARCHAR(25),

salesman\_no VARCHAR(6),

dely\_type CHAR(1) DEFAULT 'F',

billed\_yn CHAR(1) DEFAULT 'N',

dely\_date DATE ,

order\_status VARCHAR(10),

CONSTRAINT s\_order\_no\_pk PRIMARY KEY(s\_order\_no),

CONSTRAINT s\_order\_no\_ck CHECK(s\_order\_no LIKE 'O%'),

CONSTRAINT client\_no\_fk FOREIGN KEY(client\_no) REFERENCES client\_master(client\_no),

CONSTRAINT salesman\_no\_fk FOREIGN KEY(salesman\_no) REFERENCES salesman\_master(salesman\_no),

CONSTRAINT dely\_type\_ck CHECK (dely\_type IN ('P','F')),

CONSTRAINT billed\_yn\_ck CHECK (billed\_yn IN ('Y','N')),

CONSTRAINT dely\_date\_ck CHECK (dely\_date > s\_order\_date),

CONSTRAINT order\_status\_ck CHECK (order\_status IN('Inprocess','Fulfilled','Backorder','Canceled'))

);

====================================================================

CREATE TABLE sales\_order\_details (

s\_order\_no VARCHAR(6),

product\_no VARCHAR(6),

qty\_ordered NUMBER(8),

qty\_disp NUMBER(8),

product\_rate NUMBER(10,2),

CONSTRAINT s\_order\_no\_fk FOREIGN KEY(s\_order\_no) REFERENCES sales\_order(s\_order\_no),

CONSTRAINT product\_no\_fk FOREIGN KEY(product\_no) REFERENCES product\_master(product\_no)

);

==============================================================

CREATE TABLE challan\_header (

challan\_no VARCHAR(6),

s\_order\_no VARCHAR(6),

challan\_date DATE NOT NULL,

billed\_yn CHAR(1) DEFAULT'N',

CONSTRAINT challan\_no\_ch\_pk PRIMARY KEY(challan\_no),

CONSTRAINT s\_order\_no\_ch\_fk FOREIGN KEY(s\_order\_no) REFERENCES sales\_order(s\_order\_no),

CONSTRAINT challan\_no\_ck CHECK (challan\_no LIKE 'CH%'),

CONSTRAINT billed\_yn CHECK (billed\_yn IN ('Y','N'))

);

==============================================================

CREATE TABLE challan\_details(

challan\_no VARCHAR(6),

product\_no VARCHAR(6),

qty\_disp NUMBER(4,2) NOT NULL,

CONSTRAINT challan\_product\_no\_pk PRIMARY KEY (challan\_no,product\_no),

CONSTRAINT challan\_no\_ch\_fk FOREIGN KEY(challan\_no) REFERENCES challan\_header(challan\_no),

CONSTRAINT product\_no\_ch\_fk FOREIGN KEY(product\_no) REFERENCES product\_master(product\_no)

);

----------------------------------------------

insert into client\_master(client\_no, name, city, pincode,state,bal\_due)

values('C00001','Ivan Bayross','Bombay',400054,'Maharashtra',15000);

insert into client\_master(client\_no, name, city, pincode,state,bal\_due)

values('C00002','Vandana Saitwal','Madras',780001,'Tamil Nadu',0);

insert into client\_master(client\_no, name, city, pincode,state,bal\_due)

values('C00003','Pramada Jaguste','Bombay',400057,'Maharashtra',5000);

insert into client\_master(client\_no, name, city, pincode,state,bal\_due)

values('C00004','Basu Navindgi','Bombay',400056,'Maharashtra',0);

insert into client\_master(client\_no, name, city, pincode,state,bal\_due)

values('C00005','Ravi Sreedharan','Delhi',100001,'Delhi',2000);

insert into client\_master(client\_no, name, city, pincode,state,bal\_due)

values('C00006','Rukmini','Bombay',400050,'Maharashtra',0);

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ALTER TABLE product\_master ADD uom VARCHAR(10) DEFAULT 'Piece';

===============================================================

insert into product\_master(product\_no,description,profit\_percent,uom,unit\_measure,record\_lvl,sell\_price,cost\_price) values('P00001','1.44 Floppies',5,'Piece',100,20,525,500);

insert into product\_master(product\_no,description,profit\_percent,uom,unit\_measure,record\_lvl,sell\_price,cost\_price) values('P03453','Monitors',6,'Piece',10,3,12000,11280);

insert into product\_master(product\_no,description,profit\_percent,uom,unit\_measure,record\_lvl,sell\_price,cost\_price) values('P06734','Mouse',5,'Piece',20,50,1050,1000);

insert into product\_master(product\_no,description,profit\_percent,uom,unit\_measure,record\_lvl,sell\_price,cost\_price) values('P07865','1.22 Floppies',5,'Piece',100,20,525,500);

insert into product\_master(product\_no,description,profit\_percent,uom,unit\_measure,record\_lvl,sell\_price,cost\_price) values('P07868','Keyboards',2,'Piece',10,3,3150,3050);

insert into product\_master(product\_no,description,profit\_percent,uom,unit\_measure,record\_lvl,sell\_price,cost\_price) values('P07885','CD Drive',2.5,'Piece',10,3,5250,5100);

insert into product\_master(product\_no,description,profit\_percent,uom,unit\_measure,record\_lvl,sell\_price,cost\_price) values('P07965','540 HDD',4,'Piece',10,3,8400,8000);

insert into product\_master(product\_no,description,profit\_percent,uom,unit\_measure,record\_lvl,sell\_price,cost\_price) values('P07975','1.44 Drive',5,'Piece',10,3,1050,1000);

insert into product\_master(product\_no,description,profit\_precent,uom,unit\_measure,record\_lvl,sell\_price,cost\_price) values('P08865','1.22 Drive',5,'Piece',2,3,1050,1000);

==================================

insert into salesman\_master values('S00001','Kiran','A/14','Worli','Bombay',400002,'MAH',3000,100,50,'Good');

insert into salesman\_master values('S00002','Manish','65','Nariman','Bombay',400001,'MAH',3000,200,100,'Good');

insert into salesman\_master values('S00003','Ravi','P-7','Bandra','Bombay',400032,'MAH',3000,200,100,'Good');

insert into salesman\_master values('S00004','Ashish','A/5','Juhu','Bombay',400044,'MAH',3500,200,150,'Good');

======================================

insert into sales\_order(s\_order\_no,s\_order\_date,client\_no,dely\_type,billed\_Yn,salesman\_no,dely\_date,order\_status)

values('O19001',TO\_DATE('12-01-1996','DD-MM-YYYY'),'C00001','F','N','S00001',TO\_DATE('20-01-1996','DD-MM-YYYY'),'Inprocess');

insert into sales\_order(s\_order\_no,s\_order\_date,client\_no,dely\_type,billed\_Yn,salesman\_no,dely\_date,order\_status)

values('O19002',TO\_DATE('25-01-1996','DD-MM-YYYY'),'C00002','P','N','S00002',TO\_DATE('27-Jan-1996','DD-MM-YYYY'),'Canceled');

insert into sales\_order(s\_order\_no,s\_order\_date,client\_no,dely\_type,billed\_Yn,salesman\_no,dely\_date,order\_status)

values('O46865',TO\_DATE('18-02-1996','DD-MM-YYYY'),'C00003','F','Y','S00003',TO\_DATE('20-02-1996','DD-MM-YYYY'),'Fulfilled');

insert into sales\_order(s\_order\_no,s\_order\_date,client\_no,dely\_type,billed\_Yn,salesman\_no,dely\_date,order\_status)

values('O19003',TO\_DATE('03-04-1996','DD-MM-YYYY'),'C00001','F','Y','S00001',TO\_DATE('07-04-1996','DD-MM-YYYY'),'Fulfilled');

insert into sales\_order(s\_order\_no,s\_order\_date,client\_no,dely\_type,billed\_Yn,salesman\_no,dely\_date,order\_status)

values('O46866',TO\_DATE('20-05-1996','DD-MM-YYYY'),'C00004','P','N','S00002',TO\_DATE('22-05-1996','DD-MM-YYYY'),'Canceled');

insert into sales\_order(s\_order\_no,s\_order\_date,client\_no,dely\_type,billed\_Yn,salesman\_no,dely\_date,order\_status)

values('O10008',TO\_DATE('24-05-1996','DD-MM-YYYY'),'C00005','F','N','S00004',TO\_DATE('26-05-1996','DD-MM-YYYY'),'Inprocess');

============================================

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('O46865','P07868',3,3,3150);

insert into sales\_order\_details values('O46865','P07885',3,1,5250);

insert into sales\_order\_details values('O46865','P00001',10,10,525);

insert into sales\_order\_details values('O46865','P03453',4,4,1050);

insert into sales\_order\_details values('O19003','P03453',2,2,1050);

insert into sales\_order\_details values('O19003','P06734',1,1,12000);

insert into sales\_order\_details values('O46866','P07965',1,0,8400);

insert into sales\_order\_details values('O46866','P07975',1,0,1050);

insert into sales\_order\_details values('O19003','P00001',10,4,525);

insert into sales\_order\_details values('O19003','P07975',5,3,1050);

===================================================

insert into challan\_header values('CH9001','O19001','12-Dec-1995','Y');

insert into challan\_header values('CH6865','O46865','12-Nov-1995','Y');

insert into challan\_header values('CH3965','O10008','12-Oct-1995','Y');

=================================================

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);

=====================================================

select \* from Client\_master;

select \* from product\_master;

select \* from salesman\_master;

select \* from sales\_order;

select \* from sales\_order\_details;

select \* from Challan\_header;

select \* from Challan\_details;

======================================================

================================================================================

ASSIGNMENT -2

===============================================================================

--------------Single-Table-Retrival--------

--------------1----------------------------

1)Find out the names of all the clients

SELECT name FROM client\_master;

---------------2---------------------------

2)Print the entire client\_master table.

SELECT \* from Client\_master;

-----------------3-------------------------

3)Retrieve the list of names and the cities of all the clients

SELECT name, city FROM client\_master;

-----------------4-----------------------

4)List the various products available from the product\_master table.

SELECT product\_no,description FROM product\_master;

-------------------5-----------------------

5)Find the names of all clients having ‘a’ as the second letter in their table

SELECT name FROM client\_master WHERE name LIKE '\_a%';

------------------6-----------------------

6)Find the names of all clients who stay in a city whose second letter is ‘a’

SELECT name FROM client\_master WHERE city LIKE '\_a%';

-------------------7----------------------

7)Find out the clients who stay in a city ‘Bombay’ or city ‘Delhi’ or city ‘Madras’

SELECT \* FROM client\_master WHERE city IN ('Bombay','Delhi','Madras');

-------------------8----------------------

8)List all the clients who are located in Bombay.

SELECT \* FROM client\_master WHERE city = 'Bombay';

-------------------9------------------------

9)Print the list of clients whose bal\_due are greater than value 10000

SELECT \* FROM client\_master WHERE bal\_due > 10000;

-----------------10------------------------

10)Print the information from sales\_order table of orders placed in the month of January.

SELECT \* FROM sales\_order WHERE EXTRACT(MONTH FROM s\_order\_date) = 1;

----------------11-----------------------------

11)Display the order information for client\_no ‘C00001’ and ‘C00002’

SELECT \* FROM sales\_order WHERE client\_no IN ('C00001','C00002');

----------------------12---------------------------

12)Find the products with description as ‘1.44 Drive’ and ‘1.22 Drive’

SELECT product\_no,description FROM product\_master WHERE description IN('1.44 Drive','1.22 Drive');

--------------------------13------------------------

13)Find the products whose selling price is greater than 2000 and less than or equal to 5000

SELECT product\_no,description FROM product\_master WHERE sell\_price>1000 AND sell\_price<=5000;

----------------------------14-----------------------

14)Find the products whose selling price is more than 1500 and also find the new selling price as original selling price \* 15

SELECT product\_no, description,sell\_price\*15 FROM product\_master WHERE sell\_price>1500;

--------------------------15----------------------------

15)Rename the new column in the above query as new\_price

ALTER TABLE product\_master RENAME sell\_price\*15 TO new\_price;

---------------------------16----------------------------

16)Find the products whose cost price is less than 1500

SELECT product\_no, description FROM product\_master WHERE cost\_price < 1500;

--------------------------------17-----------------------

17)List the products in sorted order of their description.

SELECT product\_no, description FROM product\_master ORDER BY description;

--------------------18--------------------------------------

18)Calculate the square root the price of each product.

SELECT SQRT(sell\_price), SQRT(cost\_price) FROM product\_master;

--------------------------19---------------------------------

19)Divide the cost of product ‘540 HDD’ by difference between its price and 100

UPDATE product\_master SET cost\_price = (cost\_price\(cost\_price-100)) WHERE description = '540 HDD';

-----------------------20-------------------------------------

20)List the names, city and state of clients not in the state of Maharashtra

SELECT name, city, state from client\_master WHERE NOT state = 'Maharashtra';

-----------------------21---------------------------------------

21)List the product\_no, description, sell\_price of products whose description begin with letter ‘M’

SELECT product\_no, description, sell\_price FROM product\_master WHERE description LIKE 'M%';

---------------------------22-------------------------------------

22)List all the orders that were canceled in the month of May

SELECT s\_order\_no, s\_order\_date,dely\_date from sales\_order WHERE EXTRACT(MONTH from dely\_date) = 5 AND order\_status = 'Canceled';

----------------------------Set Functions and Concatenation-------------------

----------------------23------------------------

23)Count the total number of orders

SELECT COUNT(product\_no) FROM product\_master;

-----------------------24--------------------

24)Calculate the average price of all the products.

SELECT AVG(sell\_price),AVG(cost\_price) FROM product\_master;

---------------------25-------------------------

25)Calculate the minimum price of products.

SELECT MIN(sell\_price),MIN(cost\_price) FROM product\_master;

-----------------26---------------------------

26)Determine the maximum and minimum product prices. Rename the title as max\_price and min\_price respectively.

SELECT MAX(cost\_price) AS max\_cost\_price, MAX(sell\_price) AS max\_sell\_price, MIN(sell\_price) AS min\_sell\_price, MIN(cost\_price) AS min\_cost\_price FROM product\_master;

-----------------------27--------------------

27)Count the number of products having price greater than or equal to 1500

SELECT COUNT(product\_no) FROM product\_master WHERE sell\_price >= 1500;

------------------------28----------------------

28)Find all the products whose qty\_on\_hand is less than reorder level.

SELECT product\_no, description FROM product\_master WHERE unit\_measure < record\_lvl ;

--------------------------29--------------------

29)Print the information of client\_master, product\_master, sales\_order table in the following formate for all the records

{cust\_name} has placed order {order\_no} on {s\_order\_date}.

SELECT name || 'has placed order'|| s\_order\_no || 'on' || s\_order\_date FROM client\_master c, sales\_order s WHERE s.client\_no = c.client\_no;

----------------------------Having and Group By-------------------

----------------------30------------------------

30) Print the description and total qty sold for each product.