

EXPERIMENT 3

Date: 27th January 2023

TITLE: DDL (Data Definition Language) commands with Data Constraints

Objective: To understand the concept of data constraints that is enforced on data being stored in the table. Focus on Primary Key and the Foreign Key

CREATE THE TABLES DESCRIBED BELOW:

a. Table name: CLIENT_MASTER_1

Description: use to store client information

Column name	data type	Size	Constraints
CLIENTNO	Varchar	6	Primary key / first letter must start with 'C'
NAME	Varchar	20	Not Null
ADDRESS 1	Varchar	30	
ADDRESS 2	Varchar	30	
CITY	Varchar	15	
PINCODE	Integer	8	
STATE	Varchar	15	
BALDUE	Decimal	10,2	

Query:

```
CREATE TABLE CLIENT_MASTER_1(  
    CLIENTNO VARCHAR (6),  
    NAME VARCHAR(20) NOT NULL,  
    ADDRESS1 VARCHAR (30),  
    ADDRESS2 VARCHAR (30),  
    CITY VARCHAR (15),  
    PINCODE INTEGER(8),  
    STATE VARCHAR (15),  
    BALDUE DECIMAL (10,2),  
    PRIMARY KEY (CLIENTNO),  
    CHECK (CLIENTNO LIKE 'C%')  
);
```

DESC CLIENT_MASTER_1;

Field	Type	Null	Key	Default	Extra
CLIENTNO	varchar(6)	NO	PRI	NULL	
NAME	varchar(20)	NO		NULL	
ADDRESS1	varchar(30)	YES		NULL	
ADDRESS2	varchar(30)	YES		NULL	
CITY	varchar(15)	YES		NULL	
PINCODE	int	YES		NULL	
STATE	varchar(15)	YES		NULL	
BALDUE	decimal(10,2)	YES		NULL	

b. Table Name: PRODUCT_MASTER_1

Description: used to store product information

Column name	data type	Size	Attributes
PRODUCTNO	Varchar	6	Primary Key/ first letter must start with 'P'
DESCRIPTION	Varchar	15	Not Null
PROFITPERCENT	Decimal	4,2	Not Null
UNIT MEASURE	Varchar	10	Not Null
QTYONHAND	Integer	8	Not Null
REORDERL VL	Integer	8	Not Null
SELLPRICE	Decimal	8,2	Not Null
COSTPRICE	Decimal	8,2	Not Null

Query:

```
CREATE TABLE PRODUCT_MASTER_1(
    PRODUCTNO VARCHAR (6),
    DESCRIPTION VARCHAR(15) NOT NULL,
    PROFIT_PERCENT DECIMAL (4,2) NOT NULL,
    UNIT_MEASURE VARCHAR (10) NOT NULL,
    QTY_ON_HAND INTEGER(8) NOT NULL,
    REORDERL_VL INTEGER(8) NOT NULL,
```

SELLPRICE DECIMAL(8,2) NOT NULL,
 COST_PRICE DECIMAL(8,2) NOT NULL,
 PRIMARY KEY (PRODUCTNO),
 CHECK (PRODUCTNO LIKE 'P%')

);

DESC PRODUCT_MASTER_1;

Field	Type	Null	Key	Default	Extra
PRODUCTNO	varchar(6)	NO	PRI	NULL	
DESCRIPTION	varchar(15)	NO		NULL	
PROFIT_PERCENT	decimal(4,2)	NO		NULL	
UNIT_MEASURE	varchar(10)	NO		NULL	
QTY_ON_HAND	int	NO		NULL	
REORDERL_VL	int	NO		NULL	
SELLPRICE	decimal(8,2)	NO		NULL	
COST_PRICE	decimal(8,2)	NO		NULL	

c. Table Name: SALESMAN_MASTER_1

Description: used to store salesman information working for the company

Column name	data type	Size	Attributes
SALESMANNO	Varchar	6	Primary Key/ first letter must start with 'S'
SALESMANNAME	Varchar	20	Not Null
ADDRESS 1	Varchar	30	Not Null
ADDRESS 2	Varchar	30	
CITY	Varchar	20	
PINCODE	Integer	8	
STATE	Varchar	20	
SALAMT	Real	8,2	Not Null , Cannot be 0
TGTTTOGET	Decimal	6,2	Not Null , Cannot be 0
YTDSALES	Double	6,2	Not Null
REMARKS	Varchar	60	

Query:

```

CREATE TABLE SALESMAN_MASTER_1(
    SALESMANNO VARCHAR (6),
    SALESMANNAME VARCHAR(20) NOT NULL,
    ADDRESS1 VARCHAR(30) NOT NULL,
    ADDRESS2 VARCHAR(30),
    CITY VARCHAR (20),
    PINCODE INTEGER(8),
    STATE VARCHAR (20),
    SALAMT REAL(8,2) NOT NULL CHECK(SALAMT!=0),
    TGTTOGET DECIMAL(6,2) NOT NULL CHECK(TGTTOGET!=0),
    YTDSALES DOUBLE(6,2) NOT NULL,
    REMARKS VARCHAR (60),
    PRIMARY KEY (SALESMANNO),
    CHECK (SALESMANNO LIKE 'S%')
);
DESC SALESMAN_MASTER_1;

```

Field	Type	Null	Key	Default	Extra
SALESMANNO	varchar(6)	NO	PRI	NULL	
SALESMANNAME	varchar(20)	NO		NULL	
ADDRESS1	varchar(30)	NO		NULL	
ADDRESS2	varchar(30)	YES		NULL	
CITY	varchar(20)	YES		NULL	
PINCODE	int	YES		NULL	
STATE	varchar(20)	YES		NULL	
SALAMT	double(8,2)	NO		NULL	
TGTTOGET	decimal(6,2)	NO		NULL	
YTDSALES	double(6,2)	NO		NULL	
REMARKS	varchar(60)	YES		NULL	

REINSERT THE DATA IN THESE TWO TABLES BASED UPON LAB 1**a. Table name: CLIENT_MASTER_1**

```
INSERT INTO CLIENT_MASTER_1 VALUES("C00001", "Ivan bayross", NULL, "", "Mumbai", 400054, "Maharashtra", 15000);
```

```
INSERT INTO CLIENT_MASTER_1(CLIENTNO, NAME, CITY, PINCODE, STATE, BALDUE) VALUES("C00002", "Mamta muzumdar", "Madras", 780001, "Tamil nadu", 0);
```

```
INSERT INTO CLIENT_MASTER_1(CLIENTNO, NAME, CITY, PINCODE, STATE, BALDUE) VALUES('C00003', 'Chhaya bankar', 'Mumbai', 400057, 'Maharashtra', 5000);
```

```
INSERT INTO CLIENT_MASTER_1(CLIENTNO, NAME, CITY, PINCODE, STATE, BALDUE) VALUES('C00004', 'Ashwini joshi', 'Bangalore', 560001, 'Karnataka', 0);
```

```
INSERT INTO CLIENT_MASTER_1(CLIENTNO, NAME, CITY, PINCODE, STATE, BALDUE) VALUES('C00005', 'Hansel colaco', 'Mumbai', 400060, 'Maharashtra', 2000);
```

```
INSERT INTO CLIENT_MASTER_1(CLIENTNO, NAME, CITY, PINCODE, STATE, BALDUE) VALUES('C00006', 'Deepak sharma', 'Mangalore', 560050, 'Karnataka', 0);
```

b. Table Name: PRODUCT_MASTER_1

```
INSERT INTO PRODUCT_MASTER_1 VALUES('P00001', 'T-Shirt', 5, 'Piece', 200, 50, 350, 250);
```

```
INSERT INTO PRODUCT_MASTER_1 VALUES('P0345', 'Shirts', 6, 'Piece', 150, 50, 500, 350);
```

```
INSERT INTO PRODUCT_MASTER_1 VALUES('P06734', 'Cotton jeans', 5, 'Piece', 100, 20, 600, 450);
```

```
INSERT INTO PRODUCT_MASTER_1 VALUES('P07865', 'Jeans', 5, 'Piece', 100, 20, 750, 500);
```

```
INSERT INTO PRODUCT_MASTER_1 VALUES('P07868', 'Trousers', 2, 'Piece', 150, 50, 850, 550);
```

```
INSERT INTO PRODUCT_MASTER_1 VALUES('P07885', 'Pull Overs', 2.5, 'Piece', 80, 30, 700, 450);
```

```
INSERT INTO PRODUCT_MASTER_1 VALUES('P07965', 'Denim jeans', 4, 'Piece', 100, 40, 350, 250);
```

```
INSERT INTO PRODUCT_MASTER_1 VALUES('P07975', 'Lycra tops', 5, 'Piece', 70, 30, 300, 175);
```

```
INSERT INTO PRODUCT_MASTER_1 VALUES('P08865', 'Skirts', 5, 'Piece', 75, 30, 450, 300);
```

c. Table Name: SALESMAN_MASTER_1

INSERT INTO SALESMAN_MASTER_1 VALUES('S00001', 'Aman', 'A/14', 'Worli', 'Mumbai', 400002, 'Maharashtra', 3000, 100, 50, 'Good');

INSERT INTO SALESMAN_MASTER_1 VALUES('S00002', 'OMKAR', '65', 'NARIMAN', 'Mumbai', 400002, 'Maharashtra', 3000, 200, 100, 'Good');

INSERT INTO SALESMAN_MASTER_1 VALUES('S00003', 'RAJ', 'P-7', 'BANDRA', 'Mumbai', 400032, 'Maharashtra', 3000, 200, 100, 'Good');

INSERT INTO SALESMAN_MASTER_1 VALUES('S00004', 'ASHISH', 'A/5', 'JUHU', 'Mumbai', 400044, 'Maharashtra', 3000, 200, 150, 'Good');

d. Display the contents of each table.

SELECT * FROM CLIENT_MASTER_1;

CLIENTNO	NAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	BALDUE
C00001	Ivan bayross	NULL		Mumbai	400054	Maharashtra	15000.00
C00002	Mamta muzumdar	NULL	NULL	Madras	780001	Tamil nadu	0.00
C00003	Chhaya bankar	NULL	NULL	Mumbai	400057	Maharashtra	5000.00
C00004	Ashwini joshi	NULL	NULL	Bangalore	560001	Karnataka	0.00
C00005	Hansel colaco	NULL	NULL	Mumbai	400060	Maharashtra	2000.00
C00006	Deepak sharma	NULL	NULL	Mangalore	560050	Karnataka	0.00
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

SELECT * FROM PRODUCT_MASTER_1;

PRODUCTNO	DESCRIPTION	PROFIT_PERCENT	UNIT_MEASURE	QTY_ON_HAND	REORDERL_VL	SELLPRICE	COST_PRICE
P00001	T-Shirt	5.00	Piece	200	50	350.00	250.00
P0345	Shirts	6.00	Piece	150	50	500.00	350.00
P06734	Cotton jeans	5.00	Piece	100	20	600.00	450.00
P07865	Jeans	5.00	Piece	100	20	750.00	500.00
P07868	Trousers	2.00	Piece	150	50	850.00	550.00
P07885	Pull Overs	2.50	Piece	80	30	700.00	450.00
P07965	Denim jeans	4.00	Piece	100	40	350.00	250.00
P07975	Lycra tops	5.00	Piece	70	30	300.00	175.00
P08865	Skirts	5.00	Piece	75	30	450.00	300.00
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

SELECT * FROM SALESMAN_MASTER_1;

SALESMANNO	SALESMANNAME	ADDRESS1	ADDRESS2	CITY	PINCODE	STATE	SALAMT	TGTOGET	YTDsales	REMARKS
S00001	Aman	A/14	Worli	Mumbai	400002	Maharashtra	3000.00	100.00	50.00	Good
S00002	OMKAR	65	NARIMAN	Mumbai	400002	Maharashtra	3000.00	200.00	100.00	Good
S00003	RAJ	P-7	BANDRA	Mumbai	400032	Maharashtra	3000.00	200.00	100.00	Good
S00004	ASHISH	A/5	JUHU	Mumbai	400044	Maharashtra	3000.00	200.00	150.00	Good
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL