**EXPERIMENT-2**

**Title:** To understand and apply the concept of 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.

**1. Create the following table.**

Table name: CLIENT\_MASTER\_1

Code:

use lab\_work;

create table CLIENT\_MASTER\_1 (

CLIENTNO Varchar (6) primary key check(CLIENTNO like '%c'),

NAME1 Varchar (20) not null,

ADDRESS1 Varchar (30),

ADDRESS2 Varchar (30),

CITY Varchar (15),

PINCODE Integer (8),

STATE Varchar (15),

BALDUE Decimal (10,2)

);

Table Name: PRODUCT\_MASTER\_1

Code:

use lab\_work;

CREATE TABLE PRODUCT\_MASTER\_1(

PRODUCTNO Varchar (6) Primary Key check( PRODUCTNO like '%p'),

DESCRIPTIONS 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

);

Table Name: SALESMAN\_MASTER \_1

Code:

use lab\_work;

CREATE TABLE SALESMAN\_MASTER\_1(

SALESMANNO Varchar (6) Primary Key check(SALESMANNO like '%s') ,

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)

);

**2. Reinsert the data in these tables.**

Table name: CLIENT\_MASTER\_1

Code:

use lab\_work;

INSERT INTO CLIENT\_MASTER\_1

VALUES('c00001', 'Ivan bayross','ANDHERI ','EAST', 'Mumbai', 400054, 'Maharashtra', 15000),

('c00002', 'Mamta muzumdar', 'Shanthi Colony Main Road','AI Block','Madras', 780001, 'Tamil nadu', 0),

('c00003', 'Chhaya bankar','ANDHERI','WEST', 'Mumbai', 400057 ,'Maharashtra' ,5000),

('c00004', 'Ashwini joshi', 'Sarvepalli Radhakrishnan Rd','Soladevanahalli', 'Bangalore', 560001, 'Karnataka', 0);

Table Name: PRODUCT\_MASTER\_1

Code:

use lab\_work;

INSERT INTO PRODUCT\_MASTER\_1

VALUES('P00001', 'T-Shirt', 5 , 200,50, 350, 250,56),

('P0345', 'Shirts', 6, 150 ,50 ,500, 350,53),

('P06734' ,'Cotton jeans' ,5 ,100 ,20 ,600,450,54),

('P08865' ,'Skirts ',5 ,75 ,30 ,450 ,300,64);

Table Name: SALESMAN\_MASTER \_1

Code:

use lab\_work;

INSERT INTO SALESMAN\_MASTER\_1

VALUES( 's00001' ,'Aman' ,'A/14','Worli','Mumbai',400002,'Maharashtra',56.0,85.5,556.0,'Na'),

('s00002', 'Omkar','65','Nariman', 'Mumbai', 400001, 'Maharashtra',78.0,44.8,564.0,'NA'),

('s00003' ,'Raj' ,'P-7', 'Bandra','Mumbai',400032 ,'Maharashtra',75.0,98.0,435.5,'Na'),

('s00004' ,'Ashish' ,'A/5','Juhu','Mumbai',400044 ,'Maharashtra',74.5,55.2,554.3,'Na');

**3. Display the contents of each table**

Code:

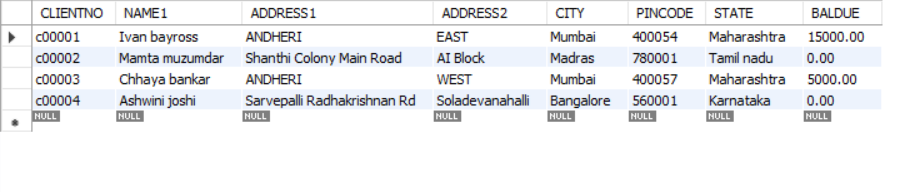
use lab\_work;

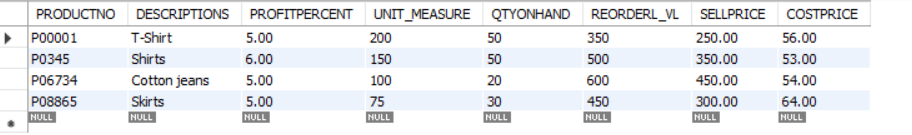
select \* from CLIENT\_MASTER\_1 ;

select \* from PRODUCT\_MASTER\_1;

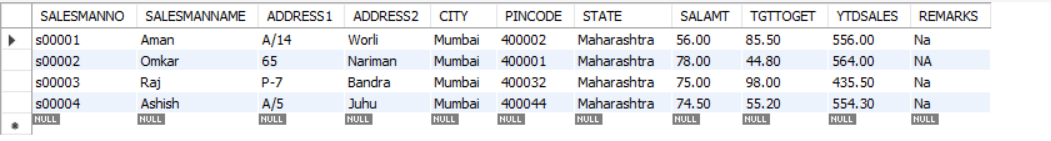
select \* from SALESMAN\_MASTER\_1;

Output:

**CLIENT\_MASTER\_1**



**PRODUCT\_MASTER\_1**



**SALESMAN\_MASTER\_1**

**4. Create table AUTHOR = {Author\_ID , Lastname, Firstname, Email, City, Country}**

Code:

use lab\_work;

CREATE TABLE AUTHOR

(

Author\_ID varchar(5) primary key,

Lastname varchar(15),

Firstname varchar(15),

Email varchar(40),

City varchar(15),

Country varchar(15)

);

**5. Create Table BOOK={ Book\_ID, Book\_Title, Copies}**

Code:

use lab\_work;

CREATE TABLE BOOK

(

Book\_ID varchar(5) primary key check(Book\_ID like 'B%'),

Book\_Title varchar(30) not null,

Copies int check(copies >2)

);

**6. Create table AUTHOR\_LIST = {Author\_ID , Book\_ID , Role}**

Code:

use lab\_work;

CREATE TABLE AUTHOR\_LIST(

Author\_ID varchar(5) references AUTHOR(Author\_ID),

Book\_ID varchar(5) references BOOK(Book\_ID),

Roles varchar(15),

primary key(Author\_ID,Book\_ID)

);

**7. Add four records in each tables AUTHOR, BOOK, Author\_LIST.**

Table Name: AUTHOR

Code:

use lab\_work;

INSERT INTO AUTHOR

VALUES ('A0001','Khan','Haseen','haseen@gmail.com','Dehradun','India'),

('A0002','kumar','Kishore', 'kishore@gmail.com','Delhi','India'),

('A0003','Pant', 'Gaurav', 'gaurav@gmail.com', 'Mumbai','India'),

('A0004', 'Katariya', 'Pal', 'Pal@gmail.com', 'Goa', 'India');

Table Name: BOOK

Code:

use lab\_work;

INSERT INTO BOOK

VALUES ( 'B0001', 'xyz', 5),

('B0002', 'abc', 8),

('B0003', 'def',9),

('B0004','jkl',6);

Table Name: AUTHOR\_LIST

Code:

use lab\_work;

INSERT INTO AUTHOR\_LIST

VALUES ('A0001','B0001', 'xyz'),

('A0002','B0002', 'abc'),

('A0003','B0003', 'def'),

('A0004','B0004', 'jkl');

**8. Alter structure of table AUTHOR\_LIST add the field Publisher data type of 30 Character.**

Code:

use lab\_work;

alter Table AUTHOR\_LIST Add Publisher varchar(30);