**Advanced Database Management Systems**

**Experiment-2**

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

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**Batch- 2**

CREATE DATABASE LabExperiment2;

USE LabExperiment2;

--Create the tables

CREATE TABLE client\_master\_1( CLIENT\_NO CHAR(6) CHECK (CLIENT\_NO like 'C%'), NAME VARCHAR(20) NOT NULL, ADDRESS1 VARCHAR(30), ADDRESS2 VARCHAR(30), CITY VARCHAR(15), PINCODE INTEGER, STATE VARCHAR(15), BAL\_DUE DECIMAL(10,2), PRIMARY KEY(CLIENT\_NO));

CREATE TABLE PRODUCT\_MASTER\_1( PRODUCT\_NO CHAR(6) PRIMARY KEY, DESCRIPTION VARCHAR(15) NOT NULL, PROFITPERCENT DECIMAL (4,2) NOT NULL, UNITMEASURE VARCHAR(10) NOT NULL, QTYONHAND INTEGER NOT NULL, REORDERLVL INTEGER NOT NULL, SELLPRICE DECIMAL(8,2) NOT NULL, COSTPRICE DECIMAL(8,2) NOT NULL, CHECK(PRODUCT\_NO like 'P%'));

CREATE TABLE SALESMAN\_MASTER\_1( SALESMAN\_NO CHAR(6) NOT NULL, SALESMANNAME VARCHAR(20) NOT NULL, ADDRESS1 VARCHAR(30) NOT NULL, ADDRESS2 VARCHAR(30), CITY VARCHAR(20), PINCODE INTEGER, STATE VARCHAR(20), SALAMT DECIMAL(8,2) CHECK(SALAMT!=0) NOT NULL, TGTTOGET DECIMAL(6,2)CHECK(TGTTOGET!=0) NOT NULL, YTDSALES DECIMAL(6,2) NOT NULL, REMARKS VARCHAR(60), PRIMARY KEY(SALESMAN\_NO), CONSTRAINT check\_SALESMAN1\_NO CHECK (SALESMAN\_NO like 'S%'));

-- Reinsert the data in these two tables based upon Lab 1.

INSERT INTO client\_master\_1 VALUES('C00001', 'Ivan bayross','','', 'Mumbai', 400054,'Maharashtra', 15000);

INSERT INTO client\_master\_1 VALUES('C0002', 'Mamta muzumdar','','', 'Madras',780001,'Tamilnadu', 0);

INSERT INTO client\_master\_1 VALUES('C0003', 'Chhaya bankar','','', 'Mumbai','400057','Maharashtra', 5000);

INSERT INTO client\_master\_1 VALUES('C0004', 'Ashwini joshi','','', 'Bangalore','560001', 'Karnataka', 0);

INSERT INTO client\_master\_1 VALUES('C0005', 'Hansel colaco','','', 'Mumbai','400060','Maharashtra', 2000);

INSERT INTO client\_master\_1 VALUES('C0006', 'Deepak sharma','','', 'Mangalore','560050', 'Karnataka',0);

INSERT INTO PRODUCT\_MASTER\_1 VALUES('P00345','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','Trous',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);

insert into SALESMAN\_MASTER\_1 values ('S00001', 'Aman', 'A/14', 'Worli', 'Mumbai',400002,'Maharashtra',100,60,80,'EXCELLENT');

insert into SALESMAN\_MASTER\_1 values ('S00002','Omkar','hno65','Nariman','Mumbai',400001,'Maharasht ra',70,500,170,'sat');

insert into SALESMAN\_MASTER\_1 values ('S00003','Raj','P7','Bandra','Mumbai',400032,'Maharashtra',85 ,75,100,'');

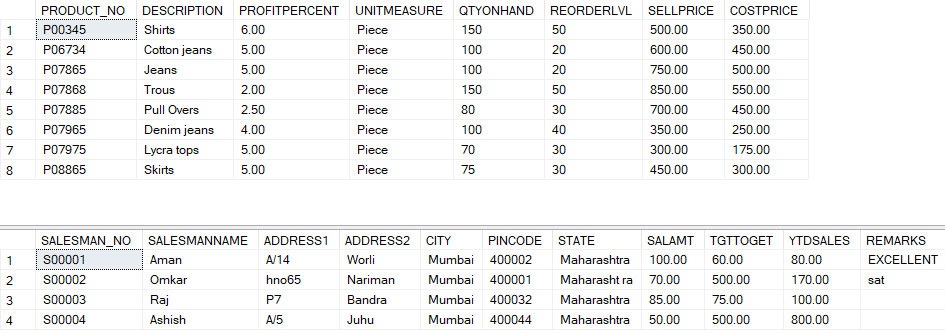
insert into SALESMAN\_MASTER\_1 values ('S00004','Ashish','A/5','Juhu','Mumbai',400044,'Maharashtra',50,500,800,'');

--Display the contents of each table.

select \* from PRODUCT\_MASTER\_1;

select \* from SALESMAN\_MASTER\_1;

**Output:**

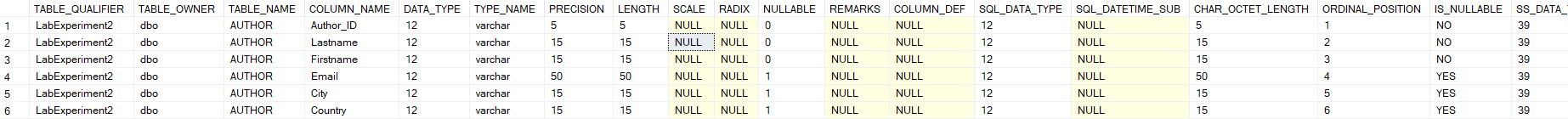
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--Create table AUTHOR

Create table AUTHOR( Author\_ID varchar(5) PRIMARY KEY NOT NULL, Lastname VARCHAR(15) NOT NULL, Firstname VARCHAR(15) NOT NULL, Email VARCHAR(50), City VARCHAR (15), Country VARCHAR(15) );

exec sp\_columns AUTHOR;

**Output:**

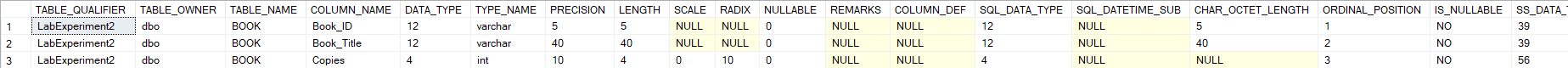
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--Create Table BOOK

Create Table BOOK( Book\_ID VARCHAR(5) PRIMARY KEY CHECK(Book\_ID LIKE 'B%'), Book\_Title VARCHAR(40) NOT NULL, Copies INTEGER check(Copies>2) NOT NULL );

exec sp\_columns BOOK;

**Output:**

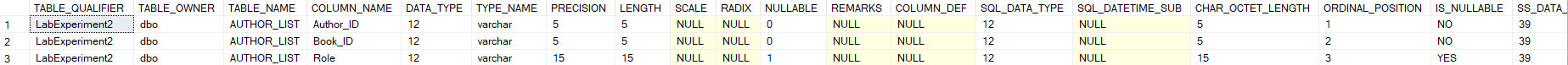
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--Create table AUTHOR\_LIST

Create table AUTHOR\_LIST ( Author\_ID VARCHAR(5), Book\_ID VARCHAR(5), Role VARCHAR(15), PRIMARY KEY(Author\_ID, Book\_ID), FOREIGN KEY(Author\_ID) REFERENCES AUTHOR(Author\_ID) );

exec sp\_columns AUTHOR\_LIST;

**Output:**

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--Add four records in each tables AUTHOR, BOOK, BOOK\_LIST.

insert into AUTHOR values ('A1011', 'Srinivasan', 'Singh','Srinivasan@gmail.com','Chennai', 'India');

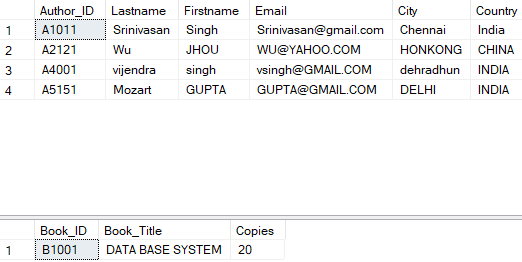
insert into AUTHOR values ('A2121', 'Wu', 'JHOU', 'WU@YAHOO.COM','HONKONG', 'CHINA');

insert into AUTHOR values ('A5151', 'Mozart', 'GUPTA', 'GUPTA@GMAIL.COM', 'DELHI','INDIA');

insert into AUTHOR values ('A4001', 'vijendra', 'singh', 'vsingh@GMAIL.COM', 'dehradhun', 'INDIA');

select \* from AUTHOR; insert into BOOK values ('B1001', 'DATA BASE SYSTEM',20); select \* from BOOK;

**Output:**

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

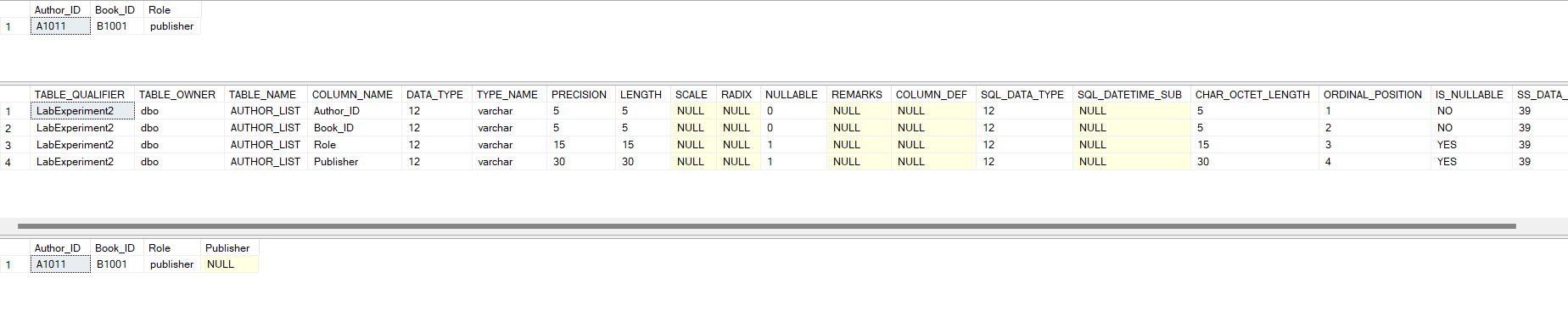
INSERT INTO AUTHOR\_LIST VALUES('A1011', 'B1001', 'publisher');

select \* from AUTHOR\_LIST; alter table AUTHOR\_LIST add Publisher varchar(30);

exec sp\_columns AUTHOR\_LIST;

select \* from AUTHOR\_LIST;

**Output:**

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