ASSIGNMENT 3

TASK 1

1. **Create University Database give any University name you want**

SYNTAX:

CREATE DATABASE SFDC\_UNIVERSITY;

USE SFDC\_UNIVERSITY;

1. **CREATE TABLE:**

CREATE TABLE COLLEGE\_TABLE

(COLLEGE\_ID VARCHAR(15) PRIMARY KEY,

COLLEGE\_NAME VARCHAR(255) NOT NULL,

COLLEGE\_AREA VARCHAR( 255) NOT NULL);

CREATE TABLE DEPARTMENT\_TABLE

(DEPT\_ID VARCHAR(15) PRIMARY KEY,

DEPT\_NAME VARCHAR(255) NOT NULL,

DEPT\_FACILITY VARCHAR(255) NOT NULL);

CREATE TABLE PROFESSOR\_TABLE

(PROFESSOR\_ID VARCHAR(15) PRIMARY KEY,

PROFESSOR\_NAME VARCHAR(255),

PROFESSOR\_SUBJECT VARCHAR(255));

CREATE TABLE STUDENT\_TABLE

(STUDENT\_ID VARCHAR(15) PRIMARY KEY,

STUDENT\_NAME VARCHAR(255),

STUDENT\_STREAM VARCHAR(255));

1. **Apply foreign key on Department key from College\_table**

Syntax:

ALTER TABLE DEPARTMENT\_TABLE ADD COLLEGE\_ID VARCHAR(15);

ALTER TABLE DEPARTMENT\_TABLE ADD FOREIGN KEY (COLLEGE\_ID) REFERENCES COLLEGE\_TABLE(COLLEGE\_ID);

1. **Apply foreign Key on Student\_Table from Professor\_Table**

SYNTAX:

ALTER TABLE STUDENT\_TABLE ADD PROFESSOR\_ID VARCHAR(15);

ALTER TABLE STUDENT\_TABLE ADD FOREIGN KEY (PROFESSOR\_ID) REFERENCES PROFESSOR\_TABLE(PROFESSOR\_ID);

**---CONNECT PROFESSOR TABLE & DEPARTMENT TABLE---**

ALTER TABLE PROFESSOR\_TABLE ADD DEPT\_ID VARCHAR(15);

ALTER TABLE PROFESSOR\_TABLE ADD FOREIGN KEY (DEPT\_ID) REFERENCES DEPARTMENT\_TABLE(DEPT\_ID);

**--- REMOVE DEPT\_FACILITY COLUMN---**

ALTER TABLE DEPARTMENT\_TABLE DROP COLUMN DEPT\_FACILITY;

1. **Insert atleast 10 Records in each table**

SYNTAX:

**COLLEGE\_TABLE**:

INSERT INTO COLLEGE\_TABLE VALUES

('C\_001','DAV','JALANDHAR'),

('C\_002','LIT','PHAGWARA'),

('C\_003','AMITY','NOIDA'),

('C\_004','RYAN','GURGAON'),

('C\_005','MANIPAL','MANGALORE'),

('C\_006','CHITKARRA','CHANDIGARH'),

('C\_007','ISB','HYDERABAD'),

('C\_008','BITS','GOA'),

('C\_009','CT','JALANDHAR'),

('C\_010','BITS','PILANI');

**DEPARTMENT\_TABLE**:

INSERT INTO DEPARTMENT\_TABLE VALUES

('D\_001','ENGINEERING','C\_001'),

('D\_002','MANAGEMENT','C\_001'),

('D\_003','PHARMA','C\_001'),

('D\_004','ENGINEERING','C\_002'),

('D\_005','PHARMA','C\_002'),

('D\_006','MANAGEMENT','C\_003'),

('D\_007','PHARMA','C\_004'),

('D\_008','MANAGEMENT','C\_005'),

('D\_009','MANAGEMENT','C\_006'),

('D\_010','MANAGEMENT','C\_007'),

('D\_011','PHARMA','C\_009'),

('D\_012','ENGINEERING','C\_008'),

('D\_013','ENGINEERING','C\_010');

**PROFESSOR\_TABLE**

INSERT INTO PROFESSOR\_TABLE VALUES

('P\_001','JOHN','JAVA','D\_001'),

('P\_002','MOHIT','POWER BI','D\_002'),

('P\_003','LISA','BIO','D\_003'),

('P\_004','ANMOL','DAA','D\_004'),

('P\_005','RYAN','CHEMISTRY','D\_005'),

('P\_006','RICHARD','ECONOMICS','D\_006'),

('P\_007','ELI','BIO','D\_007'),

('P\_008','DAVO','MARKETING','D\_008'),

('P\_009','AMAN','FINNACE','D\_009'),

('P\_010','ANIKET','MARKETING','D\_010'),

('P\_011','MATT','CHEMISTRY','D\_011'),

('P\_012','ARVIND','SQL','D\_012'),

('P\_013','DAVID','SQL','D\_013');

**STUDENT\_TABLE**

INSERT INTO STUDENT\_TABLE VALUES

('S\_001','AMAN','CSE','P\_001'),

('S\_002','BHUPINDER','FINANCE','P\_002'),

('S\_003','JAI','BPHARMA','P\_003'),

('S\_004','INDER','ECE','P\_004'),

('S\_005','ABHI','BPHARMA','P\_005'),

('S\_006','RASHIM','MARKETING','P\_006'),

('S\_007','SONIA','MPHARMA','P\_007'),

('S\_008','HARDEEP','FINANCE','P\_008'),

('S\_009','PANKAJ','OPERATIONS','P\_009'),

('S\_010','NITIN','MARKETING','P\_010'),

('S\_011','AMAN','MPHARMA','P\_010'),

('S\_012','ARVIND','MECHNICAL','P\_012'),

('S\_013','DEEPIKA','IT','P\_013');

**TASK 2**

1. **Give the information of College\_ID and College\_name from College\_Table**

SYNTAX:

SELECT COLLEGE\_ID,COLLEGE\_NAME FROM COLLEGE\_TABLE;

1. **Show Top 5 rows from Student table**

SYNTAX:

SELECT TOP 5 \* FROM STUDENT\_TABLE;

1. **What is the name of professor whose ID is 5**

SYNTAX:

SELECT PROFESSOR\_NAME FROM PROFESSOR\_TABLE WHERE PROFESSOR\_ID='P\_005';

1. **Convert the name of the Professor into Upper case**

SYNTAX:

SELECT UPPER(PROFESSOR\_NAME) AS PROFESSOR\_NAME FROM PROFESSOR\_TABLE;

1. **Show me the names of those students whose name is start with a**

SYNTAX:

SELECT STUDENT\_NAME FROM STUDENT\_TABLE WHERE STUDENT\_NAME LIKE 'A%';

1. **Give the name of those colleges whose end with a**

SYNTAX:

SELECT COLLEGE\_NAME FROM COLLEGE\_TABLE WHERE COLLEGE\_NAME LIKE '%A';

1. **Add one Salary Column in Professor\_Table**

SYNTAX:

ALTER TABLE PROFESSOR\_TABLE ADD SALARY NUMERIC;

1. **Add one Contact Column in Student\_table**

SYNTAX:

ALTER TABLE STUDENT\_TABLE ADD CONTACT VARCHAR(50);

1. **Change datatype of any one column of any one Table**

SYNTAX:

ALTER TABLE PROFESSOR\_TABLE ALTER COLUMN PROFESSOR\_SUBJECT CHAR(25);

**TASK 3**

1. **Show first 5 records from Students table and Professor table Combine**

SYNTAX:

SELECT TOP 5 S.\*, P.\* FROM STUDENT\_TABLE S JOIN PROFESSOR\_TABLE P ON S.PROFESSOR\_ID=P.PROFESSOR\_ID;

1. **Apply Inner join on all 4 tables together**

SYNTAX:

SELECT C.\*, D.\*,P.\*, S.\* FROM (((STUDENT\_TABLE S JOIN PROFESSOR\_TABLE P ON S.PROFESSOR\_ID =P.PROFESSOR\_ID)

JOIN DEPARTMENT\_TABLE D ON P.DEPT\_ID=D.DEPT\_ID)

JOIN COLLEGE\_TABLE C ON C.COLLEGE\_ID=D.COLLEGE\_ID);

1. **Show Some null values from Department table and Professor table**

SYNTAX:

SELECT D.\*, P.\* FROM DEPARTMENT\_TABLE D FULL OUTER JOIN PROFESSOR\_TABLE P ON D.DEPT\_ID=P.DEPT\_ID;

1. **Create a View from College Table and give those records whose college name starts with C**

SYNTAX:

Create a View from College Table and give those records whose college name starts with C

1. **Create Stored Procedure of Professor table whatever customer ID will be given by user it should show whole records of it.**

**SYNTAX:**

CREATE PROCEDURE PROD\_PROFESSOR\_CUST @CUSTOMER\_ID VARCHAR(15)=NULL AS

BEGIN

SELECT \* FROM PROFESSOR\_TABLE WHERE PROFESSOR\_ID=@CUSTOMER\_ID

END

GO

EXEC PROD\_PROFESSOR\_CUST @CUSTOMER\_ID='P\_001';

1. **Rename the College\_Table to College\_Tables\_Data**

SYNTAX:

EXEC sp\_rename 'COLLEGE\_TABLE','COLLEGE\_TABLES\_DATA';