**Assignment 1**

--Basics Questions:-

--Q1

CREATE Database Brands

CREATE DATABASE Products

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USE Brands

--Q2

create table ITEMS\_Table(

Item\_id int,

item\_description varchar(100),

vendor\_nos int,

vendor\_name nvarchar(100),

bottle\_size int,

bottle\_price money)

--Q3

insert into ITEMS\_Table values(1,'Travis Hasse Apple Pie', 305, 'Mhw Ltd',750, 9.77)

insert into ITEMS\_Table values(2,'Daristi Xtabentun', 391, 'Anchor Distilling (preiss Imports)', 750, 14.12)

insert into ITEMS\_Table values(3,'Hiram Walker Peach Brandy', 370, 'Pernod Ricard Usa/austin Nichols', 1000, 6.50)

insert into ITEMS\_Table values(4,'Oak Cross Whisky', 305, 'Mhw Ltd', 750, 25.33)

insert into ITEMS\_Table values(5,'Uv Red(cherry) Vodka', 380, 'Phillips Beverage Company', 200, 1.97)

insert into ITEMS\_Table values(6,'Heaven Hill Old Style White Label', 259, 'Heaven Hill Distilleries Inc.', 750, 6.37)

insert into ITEMS\_Table values(7,'Hyde Herbal Liqueur', 194, 'Fire Tail Brands Llc', 750 , 5.06)

insert into ITEMS\_Table values(8,'Dupont Calvados Fine Reserve', 403, 'Robert Kacher Selections', 750, 23.61)

UPDATE ITEMS\_Table SET item\_description = 'D''aristi Xtabentun' WHERE ITEM\_ID = 2

SELECT \* FROM ITEMS\_Table

--Q1

CREATE Database Brands

CREATE DATABASE Products

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USE PRODUCTS;

--Q2

CREATE TABLE PRODUCT\_Table(Product\_Id int,

Country Varchar(50),

Product varchar(50),

Unit\_Sold money,

Manufacturing\_Price money,

Sale\_Price Money,

Gross\_Sales money,

Sales money,

COGS money,

Profit money,

P\_Date date,

Month\_number int,

Month\_Name varchar(20),

PYear int);

--Q3

insert into PRODUCT\_Table values(1,'Canada','Carretera',1618.5,3,20,32370,32370,16185,16185,'01-01-2014',1,'January',2014);

insert into PRODUCT\_Table values(2,'Germany','Carretera',1321,3,20,26420,26420,13210,13210,'01-01-2014',1,'January',2015);

insert into PRODUCT\_Table values(3,'France','Carretera',2178,3,15,32670,32670,21780,10890,'01-06-2014',6,'June',2016);

insert into PRODUCT\_Table values(4,'Germany','Carretera',888,3,15,13320,13320,8880,4440,'01-06-2014',6,'June',2017);

insert into PRODUCT\_Table values(5,'Mexico','Carretera',2470,3,15,37050,37050,24700,12350,'01-06-2014',6,'June',2018);

insert into PRODUCT\_Table values(6,'Germany','Carretera',1513,3,350,529550,529550,393380,136170,'01-12-2014',12,'December',2019);

insert into PRODUCT\_Table values(7,'Germany','Montana',921,5,15,13815,13815,9210,4605,'01-03-2014',3,'March',2020);

insert into PRODUCT\_Table values(8,'Canada','Montana',2518,5,12,30216,30216,7554,22662,'01-06-2014',6,'June',2021);

select \* from PRODUCT\_Table;

--Q4

DELETE FROM PRODUCT\_Table WHERE Unit\_Sold IN (1618.5, 888, 2470)

--Q5

DROP TABLE PRODUCT\_Table

--Intermediate Questions

select \* from PRODUCT\_Table;

--Q1

SELECT SUM(Sale\_Price), sum(Gross\_Sales) from product\_Table

--Q2

select PYear, Sales from PRODUCT\_Table where Sales =(SELECT MAX(Sales) from PRODUCT\_Table)

--Q3

SELECT \* FROM PRODUCT\_Table where sales = 37050.00

SELECT Product\_Id, Product FROM PRODUCT\_Table where sales = 37050.00

--Q4

SELECT COUNTRY, profit FROM PRODUCT\_Table where profit between 4605 and 22662.00

--Q5

SELECT PRODUCT\_Id from PRODUCT\_Table where sales = 24700.00

--Small Table :--

--Q1

select item\_description from ITEMS\_Table Where bottle\_size=750

--Q2

select Vendor\_name from ITEMS\_Table Where vendor\_nos in (305, 380, 391)

--Q3

select sum(bottle\_price) from ITEMS\_Table

--Q4

Alter table ITEMS\_Table ALTER COLUMN ITEM\_ID INT NOT NULL ;

Alter table ITEMS\_Table add primary key (Item\_id);

--Alter table ITEMS\_Table ADD CONSTRAINT Pk\_Item\_id PRIMARY KEY (item\_id);

--Q5

SELECT ITEM\_ID from ITEMS\_Table Where bottle\_PRICE=5.06

--Advance Questions:--

SELECT \* FROM [Products].[dbo].PRODUCT\_Table

SELECT \* FROM [Brands].[dbo].ITEMS\_Table

--Q1

SELECT \* FROM [Products].[dbo].PRODUCT\_Table p INNER JOIN [Brands].[dbo].ITEMS\_Table i ON p.PRODUCT\_ID= i.ITEM\_ID

SELECT \* FROM [Products].[dbo].PRODUCT\_Table p FULL OUTER JOIN [Brands].[dbo].ITEMS\_Table i ON p.PRODUCT\_ID= i.ITEM\_ID

SELECT \* FROM [Products].[dbo].PRODUCT\_Table p left JOIN [Brands].[dbo].ITEMS\_Table i ON p.PRODUCT\_ID= i.ITEM\_ID

--Q2

SELECT \* FROM [Products].[dbo].PRODUCT\_Table p FULL OUTER JOIN [Brands].[dbo].ITEMS\_Table i ON p.PRODUCT\_ID= i.ITEM\_ID

SELECT i.\*, p.\* FROM [Products].[dbo].PRODUCT\_Table p Right JOIN [Brands].[dbo].ITEMS\_Table i ON p.PRODUCT\_ID= i.ITEM\_ID

SELECT \* FROM [Products].[dbo].PRODUCT\_Table CROSS JOIN [Brands].[dbo].ITEMS\_Table

--Q3

SELECT i.item\_description, p.product FROM [Products].[dbo].PRODUCT\_Table p INNER JOIN [Brands].[dbo].ITEMS\_Table i ON p.PRODUCT\_ID= i.ITEM\_ID where p.gross\_sales= 13320.00

--Q4

select \* from ITEMS\_Table

SELECT SUBSTRING(item\_description, 1, CHARINDEX(' ', item\_description) - 1) AS Firstname,

SUBSTRING(item\_description,

CHARINDEX(' ', item\_description) + 1,

LEN(item\_description) - CHARINDEX(' ', item\_description)) AS Lastname

FROM ITEMS\_Table

**Assignment 2**

--Assignment No 2

--Q1

create database Order\_Stores\_Data

use Order\_Stores\_Data

--Q2

create table Orders\_Table(

OrderDate date,

Region varchar(10),

Rep varchar(20),

Order\_Item varchar(20),

Units int,

UnitCost money,

Total\_Price money,

Order\_Id int);

create table Stores\_Table(

Store\_Id int,

StoreType char,

assortment int,

CompetitionDistance int,

Month int,

year int,

PromoInterval varchar(20))

--Q3

insert into Orders\_Table values('1-6-21','East','Aruna','Pencil',95, 1.99,189.05,1);

insert into Orders\_Table values('1-23-21','Central','Kivell','Eraser',50, 19.99,999.50,2)

insert into Orders\_Table values('2-9-21','Central','Ganesh','', 36, 4.99, 179.64,3)

insert into Orders\_Table values('2-26-21','Central','Payal','',27,19.99, 539.73,4)

insert into Orders\_Table values('3-15-21','West','Sorvino','',56, 2.99, 167.44,5)

insert into Orders\_Table values('4-1-21','East','Hitesh','Pencil', 60, 4.99, 299.40,6)

insert into Orders\_Table values('4-18-21','Central','Akshita','', 75, 1.99, 149.25,7)

insert into Orders\_Table values('5-5-21','Central','Ruchika','Books',90,4.99,449.1,8)

insert into Orders\_Table values('5-22-21','West','Surbhi','',32,1.99,63.68,9)

insert into Orders\_Table values('6-8-21','East','Jones','Suitcase',60,8.99,539.40,10)

insert into Stores\_Table values(1,'c',27,1270,9,2008,'Jan')

insert into Stores\_Table values(2,'a',43,570,11,2007,'Feb')

insert into Stores\_Table values(3,'a',35,14130,12,2006,'Mar')

insert into Stores\_Table values(4,'c',31,620,9,2009,'')

insert into Stores\_Table values(5,'a',42,29910,4,2015,'May')

insert into Stores\_Table values(6,'a',27,310,12,2013,'June')

insert into Stores\_Table values(7,'a',12,24000,4,2013,'')

insert into Stores\_Table values(8,'a',14,7520,10,2014,'Aug')

insert into Stores\_Table values(9,'a',14,2030,8,2000,'')

insert into Stores\_Table values(10,'a',45,3160,9,2009,'Oct')

select \* from Orders\_Table

select \* from Stores\_Table

--Q3

alter table orders\_table alter column Order\_id int not null

alter table orders\_table add primary key (Order\_id)

--Q4

ALTER TABLE STORES\_TABLE ADD STORE\_NAMES VARCHAR(20)

UPDATE Stores\_Table SET STORE\_NAMES = 'Car' WHERE Store\_Id = 1

UPDATE Stores\_Table SET STORE\_NAMES = 'Bikes' WHERE Store\_Id = 2

UPDATE Stores\_Table SET STORE\_NAMES = 'Hardware' WHERE Store\_Id = 3

UPDATE Stores\_Table SET STORE\_NAMES = 'Electrics' WHERE Store\_Id = 4

UPDATE Stores\_Table SET STORE\_NAMES = 'Fibers' WHERE Store\_Id = 5

UPDATE Stores\_Table SET STORE\_NAMES = 'Elastics' WHERE Store\_Id = 6

UPDATE Stores\_Table SET STORE\_NAMES = 'Books' WHERE Store\_Id = 7

UPDATE Stores\_Table SET STORE\_NAMES = 'Shoes' WHERE Store\_Id = 8

UPDATE Stores\_Table SET STORE\_NAMES = 'Clothes' WHERE Store\_Id = 9

UPDATE Stores\_Table SET STORE\_NAMES = 'Scraps' WHERE Store\_Id = 10

--Q5

ALTER TABLE Stores\_table add foreign key (Store\_Id) references orders\_table(Order\_Id)

--Q6

UPDATE Orders\_Table SET Order\_Item ='Compass' WHERE ORDER\_ID=3

UPDATE Orders\_Table SET Order\_Item ='Torch' WHERE ORDER\_ID=4

UPDATE Orders\_Table SET Order\_Item ='Phone' WHERE ORDER\_ID=5

UPDATE Orders\_Table SET Order\_Item ='Laptop' WHERE ORDER\_ID=7

UPDATE Orders\_Table SET Order\_Item ='Box' WHERE ORDER\_ID=9

--Q7

UPDATE Stores\_Table SET PromoInterval = 'Apr' WHERE Store\_Id = 4

UPDATE Stores\_Table SET PromoInterval = 'Jul' WHERE Store\_Id = 7

UPDATE Stores\_Table SET PromoInterval = 'Sept' WHERE Store\_Id = 9

--Q8

sp\_rename 'STORES\_TABLE.assortment', 'Store\_Nos', 'COLUMN';

--Q9

sp\_rename 'Orders\_Table.ORDER\_Item', 'Item\_Name', 'COLUMN';

sp\_rename 'Orders\_Table.Rep', 'Customers\_Name', 'COLUMN';

--Q10

SELECT \* FROM Orders\_Table ORDER BY UnitCost desc, Total\_Price asc

--Q11

sp\_rename 'Orders\_Table.Customers\_Name', 'Cus\_Name', 'COLUMN';

select Region, count(Cus\_name) AS Count\_of\_customers from orders\_table group by Region

--Q12

SELECT SUM (Total\_price) as Top\_Price, sum (UnitCost) as unicst from Orders\_Table

--Q13

SELECT o.OrderDate, o.UnitCost, s.storetype, s.year from Orders\_Table o join Stores\_Table s on o.Order\_Id=s.Store\_Id

--Q14

SELECT ORDER\_ITEM, REGION FROM Orders\_Table WHERE ORDER\_ID IN (4,5,6,9)

--Q15

SELECT YEAR FROM Stores\_Table WHERE CompetitionDistance IN (29910,310,3160)

--Q16

SELECT ORDER\_ITEM FROM Orders\_Table WHERE Total\_Price>200 AND Total\_Price<400

--Q17

sp\_rename 'STORES\_TABLE.CompetitionDistance', 'CD', 'COLUMN';

SELECT SUM(CD) AS TOTAL\_CD FROM Stores\_Table

--Q18

SELECT StoreType, sum(CD) as total\_CD from Stores\_Table group by storetype

--Q19

SELECT \* FROM Orders\_Table CROSS JOIN Stores\_Table

--Q20

DROP TABLE Stores\_Table

DROP TABLE Orders\_Table

DROP DATABASE Order\_Stores\_Data

**Assignment 4**

create database std

use std

create table student(StudentId int primary key,

S\_name varchar(100),

Surname varchar(100),

Birthdate date,

Gender char,

class varchar(100),

point int)

--Assignment Answers below

1. select \* from student
2. select S\_name, surname, class from student
3. select \* from student where gender = 'F'
4. select class from student group by class
5. select \* from student where gender = 'F' and Class = '10Math'
6. select S\_name, surname, class from student where class in ('10Math', '10Sci')
7. select S\_name, surname from student
8. select concat(S\_name, ' ',surname) as Full\_name from student
9. select \* from student where lower(S\_name) like 'a%'
10. Invalid Question - **List the book names and pages count with number of pages between 50 and 200 in the book table**
11. select \* from student where lower(S\_name) in ('emma', 'sophia', 'robert')
12. select \* from student where lower(S\_name) like 'a%' or S\_name like 'd%' or S\_name like 'k%'
13. select S\_name, surname, class, gender from student where gender = 'M' and Class = '9Math' or gender = 'F' and Class = '9His'
14. select \* from student where gender = 'M' and Class = '10Math' or Class = '10Bio'
15. select \* from student where birthdate like '%1989'

**Assignment 5**

--Task 1

--Q1

create database VIT\_University

use VIT\_University

--Q2

create table College\_Table(

College\_ID int primary key,

College\_Name varchar(50),

College\_Area varchar(50)) ;

create table Department\_Table(

Dept\_ID int primary key,

Dept\_Name varchar (50),

Dept\_Facility varchar(250),

clg\_ID INT NOT NULL);

create table Professor\_Table(

Professor\_ID int primary key,

Professor\_Name varchar(50),

Professor\_Subject varchar(50));

create table Student\_Table(

Student\_ID int primary key,

Student\_Name varchar(50),

Student\_Stream varchar(50),

PROFF\_ID INT NOT NULL);

select \* from Department\_Table;

select \* from College\_Table

select \* from Professor\_Table

select \* from Student\_Table

exec sp\_rename 'Department\_table.DEPT\_Facility', 'Dept\_Faculty', 'column';

--Q3

ALTER TABLE Department\_Table add foreign key(clg\_ID) references college\_table(college\_ID)

--Q4

ALTER TABLE Student\_Table add foreign key (proff\_ID) references professor\_table(professor\_ID)

--Q5

insert into College\_Table values(1, 'PICT', 'Pune'),(2, 'PCCOE', 'Pune'), (3, 'COEP', 'Pune'), (4, 'VJTI', 'Mumbai'), (5, 'NIT', 'Nagpur'), (6, 'KIT', 'Bangalore'), (7, 'CKP', 'Chennai'), (8, 'Fite', 'Roorkie'), (9, 'SCCIO', 'Mumbai'), (10, 'DPS', 'Delhi');

insert into Department\_Table values(1, 'IT', 'Dhabe', 1 ), (3, 'Comp', 'kulkarni', 1), (2, 'IT', 'Patil', 4), (7, 'ENTC', 'Pawar', 1), (8, 'ELEX', 'Singh', 2), (5, 'Industrial', 'Raje', 8), (6, 'PRODUCTION', 'Gije', 3), (9, 'Comp', 'Pawar', 4), (10, 'Mech', 'Divya', 5), (11, 'Mech', 'vj',7);

insert into Professor\_Table values(1,'Dhabe', 'AI'), (2,'kulkarni', 'DSA'), (3,'Swain', 'Maths'), (4,'Bailke', 'AT'), (6,'Donge', 'DSA'), (8,'Patil', 'Angular'), (7,'Singh', 'PL/SQL'), (11,'Patil', 'MATH3'), (9,'Pawar', 'Math2'),(15,'Gije', 'Digital Electronics'), (5, 'Disha', 'ML');

insert into Student\_TABLE values(1, 'Ram', 'Sci', 1), (11, 'Sham', 'Maths', 2),(4, 'Ramesh', 'Bio', 4),(5, 'Hermoine', 'Math', 2),(7, 'Ron', 'Bio', 4),(8, 'Riya', 'Bio', 4),(2, 'Divya', 'Sci',1),(3, 'Pooja', 'Commerce', 15),(6, 'Dhanno', 'Arts', 8),(21, 'Adi', 'Arts',8)

--Task 2

--Q1

select college\_id, College\_name from College\_Table;

--Q2

SELECT TOP 5 \* FROM Student\_Table

--Q3

SELECT Professor\_Name FROM Professor\_Table WHERE Professor\_ID= 5

--Q4

SELECT UPPER(PROFESSOR\_NAME) FROM Professor\_Table;

--Q5

SELECT STUDENT\_NAME FROM Student\_Table WHERE lower(Student\_Name) LIKE 'a%'

--Q6

select College\_Name from College\_Table where lower(College\_Name) like '%a'

--Q7

ALTER TABLE PROFESSOR\_TABLE ADD SALARY MONEY ;

--Q8

ALTER TABLE student\_TABLE ADD contact int ;

--Q9

UPDATE Professor\_Table SET SALARY = 20000

UPDATE Professor\_Table SET SALARY = 40000 WHERE Professor\_ID=2

UPDATE Professor\_Table SET SALARY = 70000 WHERE Professor\_ID=5

SELECT SUM(SALARY) AS TOTAL\_SALARY FROM Professor\_Table

--Q10

ALTER TABLE PROFESSOR\_TABLE ALTER COLUMN SALARY INT;

--TASK 3

--Q1

SELECT TOP 5 \* FROM Student\_Table S JOIN Professor\_Table P ON S.PROFF\_ID = P.Professor\_ID

--Q2

alter table professor\_table add dep\_id int not null default 1

ALTER TABLE professor\_table add foreign key (dep\_id) references department\_table(dept\_ID)

select \* from College\_Tables\_data

select \* from Department\_Table;

select \* from Professor\_Table

select \* from Student\_Table

select \* from college\_tables\_data c, department\_table d, Professor\_Table p, Student\_Table s

where c.college\_id= d.clg\_ID

and d.Dept\_ID = p.dep\_id

and p.Professor\_ID = s.PROFF\_ID

--Q3

SELECT \* FROM Professor\_Table WHERE SALARY IS NULL

select \* from Department\_Table where dept\_faculty is null

--Q4

Create view Clg\_Vw

as

select \* from College\_Table where lower(College\_Name) like 'c%'

select \* from Clg\_Vw

--Q5

CREATE PROC spProfessorData

@PRO\_ID INT

AS

BEGIN

SELECT \* FROM Professor\_Table

WHERE Professor\_ID = @PRO\_ID

END

exec spProfessorData

@PRO\_ID = 4

--Q6

EXEC sp\_rename, 'college\_table', 'College\_Tables\_Data'