

NAME : Bhavik Ransubhe
CLASS : TE (B) COMP
ROLL NO :39055

ASSIGNMENT 4

CREATING DATABASE :

```
CREATE database assign4;  
use assign4;
```

CREATING TABLES AND INSERTING VALUES:

```
CREATE TABLE customer(  
customer_id int(10) NOT NULL AUTO_INCREMENT,  
name varchar(50) NOT NULL,  
city varchar(50) NOT NULL,  
phone varchar(50) DEFAULT NULL,  
age varchar(50) NOT NULL,  
PRIMARY KEY (customer_id)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
```

```
INSERT INTO customer(name,city,phone,age) VALUES  
( 'Bhavik','Pune','9090909090','20'),  
( 'Shahrukh','Kolkata','8080808080','52'),  
( 'Mukesh','Mumbai','7070707070','60'),  
( 'vijay','Banglore','6060606060','40'),  
( 'salman','lonavala','5050505050','52'),  
( 'Jhonny','Pune','4040404040','20');
```

```
select * from customer;
```

	customer_id	name	city	phone	age
▶	1	Bhavik	Pune	9090909090	20
	2	Shahrukh	Kolkata	8080808080	52
	3	Mukesh	Mumbai	7070707070	60
	4	vijay	Banglore	6060606060	40
	5	salman	lonavala	5050505050	52
	6	Jhonny	Pune	4040404040	20
•	NULL	NULL	NULL	NULL	NULL

```
CREATE TABLE orders(  
order_id int(10) NOT NULL AUTO_INCREMENT,  
cust_id int(10) NOT NULL,  
o_date DATE,  
amount varchar(50) NOT NULL,  
PRIMARY KEY (order_id)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
```

```
INSERT INTO orders(cust_id,o_date,amount) VALUES
('1','2020-10-04','500'),
('1','2020-10-04','700'),
('2','2020-10-05','100'),
('3','2020-10-06','200'),
('4','2020-10-07','1000');
```

```
select * from orders;
```

	order_id	cust_id	o_date	amount
▶	1	1	2020-10-04	500
	2	1	2020-10-04	700
	3	2	2020-10-05	100
	4	3	2020-10-06	200
	5	4	2020-10-07	1000
✱	NULL	NULL	NULL	NULL

```
CREATE TABLE customer2(
customer2_id int(10) NOT NULL AUTO_INCREMENT,
name varchar(50) NOT NULL,
city varchar(50) NOT NULL,
phone varchar(50) DEFAULT NULL,
age varchar(50) NOT NULL,
PRIMARY KEY (customer2_id)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
```

JOINS:

INNER JOIN:

```
SELECT customer_id, name, amount ,o_date
FROM customer
INNER JOIN orders
ON customer.customer_id = orders.cust_id;
```

	customer_id	name	amount	o_date
▶	1	Bhavik	500	2020-10-04
	1	Bhavik	700	2020-10-04
	2	Shahrukh	100	2020-10-05
	3	Mukesh	200	2020-10-06
	4	vijay	1000	2020-10-07

LEFT JOIN:

```
SELECT customer_id, name, amount ,o_date
FROM customer
LEFT JOIN orders
```

ON customer.customer_id = orders.cust_id;

	customer_id	name	amount	o_date
▶	1	Bhavik	500	2020-10-04
	1	Bhavik	700	2020-10-04
	2	Shahrukh	100	2020-10-05
	3	Mukesh	200	2020-10-06
	4	vijay	1000	2020-10-07
	5	salman	NULL	NULL
	6	Jhonny	NULL	NULL

RIGHT JOIN:

```
SELECT customer_id, name, amount ,o_date
FROM customer
RIGHT JOIN orders
ON customer.customer_id = orders.cust_id;
```

	customer_id	name	amount	o_date
▶	1	Bhavik	500	2020-10-04
	1	Bhavik	700	2020-10-04
	2	Shahrukh	100	2020-10-05
	3	Mukesh	200	2020-10-06
	4	vijay	1000	2020-10-07

UNION All (FULL JOIN DOESN'T WORK):

```
SELECT customer_id, name, amount ,o_date
FROM customer
LEFT JOIN orders
ON customer.customer_id = orders.cust_id
UNION All
SELECT customer_id, name, amount ,o_date
FROM customer
RIGHT JOIN orders
ON customer.customer_id = orders.cust_id;
```

	customer_id	name	amount	o_date
▶	1	Bhavik	500	2020-10-04
	1	Bhavik	700	2020-10-04
	2	Shahrukh	100	2020-10-05
	3	Mukesh	200	2020-10-06
	4	vijay	1000	2020-10-07
	5	salman	NULL	NULL
	6	Jhonny	NULL	NULL
	1	Bhavik	500	2020-10-04
	1	Bhavik	700	2020-10-04
	2	Shahrukh	100	2020-10-05
	3	Mukesh	200	2020-10-06
	4	vijay	1000	2020-10-07

SELF JOIN:

```
SELECT a.customer_id, a.name, a.age
FROM customer a, customer b
WHERE a.age < b.age;
```

	customer_id	name	age
▶	1	Bhavik	20
	4	vijay	40
	6	Jhonny	20
	1	Bhavik	20
	2	Shahrukh	52
	4	vijay	40
	5	salman	52
	6	Jhonny	20
	1	Bhavik	20
	6	Jhonny	20
	1	Bhavik	20
	4	vijay	40
	6	Jhonny	20

CARTESIAN/CROSS JOIN :

```
SELECT customer_id, name, amount ,o_date
FROM customer
CARTESIAN JOIN orders;
```

OUTPUT:

customer_id	name	amount	o_date
1	Bhavik	500	2020-10-04
1	Bhavik	700	2020-10-04
1	Bhavik	100	2020-10-05

customer_id	name	amount	o_date
1	Bhavik	200	2020-10-06
1	Bhavik	1000	2020-10-07
2	Shahrukh	500	2020-10-04
2	Shahrukh	700	2020-10-04
2	Shahrukh	100	2020-10-05
2	Shahrukh	200	2020-10-06
2	Shahrukh	1000	2020-10-07
3	Mukesh	500	2020-10-04
3	Mukesh	700	2020-10-04
3	Mukesh	100	2020-10-05
3	Mukesh	200	2020-10-06
3	Mukesh	1000	2020-10-07
4	vijay	500	2020-10-04
4	vijay	700	2020-10-04
4	vijay	100	2020-10-05
4	vijay	200	2020-10-06
4	vijay	1000	2020-10-07
5	salman	500	2020-10-04
5	salman	700	2020-10-04
5	salman	100	2020-10-05
5	salman	200	2020-10-06
5	salman	1000	2020-10-07
6	Jhonny	500	2020-10-04
6	Jhonny	700	2020-10-04
6	Jhonny	100	2020-10-05
6	Jhonny	200	2020-10-06
6	Jhonny	1000	2020-10-07

SUBQUERIES :

SELECT name, city FROM customer WHERE
city IN (SELECT city FROM customer WHERE city = 'Pune');

	name	city
▶	Bhavik	Pune
	Jhonny	Pune

SELECT name, city ,age FROM customer WHERE
age = (SELECT MAX(age) FROM customer);

	name	city	age
▶	Mukesh	Mumbai	60

SELECT name, city ,age FROM customer WHERE
age > (SELECT AVG(age) FROM customer);

	name	city	age
▶	Shahrukh	Kolkata	52
	Mukesh	Mumbai	60
	salman	lonavala	52

INSERT INTO customer2 SELECT * FROM customer
WHERE customer_id IN (SELECT customer_id FROM customer);

select * from customer2;

	customer2_id	name	city	phone	age
▶	1	Bhavik	Pune	9090909090	20
	2	Shahrukh	Kolkata	8080808080	52
	3	Mukesh	Mumbai	7070707070	60
	4	vijay	Banglore	6060606060	40
	5	salman	lonavala	5050505050	52
	6	Jhonny	Pune	4040404040	20
•	NULL	NULL	NULL	NULL	NULL

UPDATE customer
SET city = 'LA'
WHERE age IN (SELECT age FROM customer2
WHERE age = 40);

	customer_id	name	city	phone	age
▶	1	Bhavik	Pune	9090909090	20
	2	Shahrukh	Kolkata	8080808080	52
	3	Mukesh	Mumbai	7070707070	60
	4	vijay	LA	6060606060	40
	5	salman	lonavala	5050505050	52
	6	Jhonny	Pune	4040404040	20
•	NULL	NULL	NULL	NULL	NULL

```
DELETE FROM customer2
WHERE age IN (SELECT age FROM customer
WHERE age = 40 );
```

	customer2_id	name	city	phone	age
▶	1	Bhavik	Pune	9090909090	20
	2	Shahrukh	Kolkata	8080808080	52
	3	Mukesh	Mumbai	7070707070	60
	5	salman	lonavala	5050505050	52
	6	Jhonny	Pune	4040404040	20
•	NULL	NULL	NULL	NULL	NULL

VIEWS :

Creating a view, updating the view , inserting the value & then dropping the view .

```
CREATE VIEW view1 AS
SELECT * FROM customer2;
```

```
select * from view1;
```

	customer2_id	name	city	phone	age
▶	1	Bhavik	Pune	9090909090	20
	2	Shahrukh	Kolkata	8080808080	52
	3	Mukesh	Mumbai	7070707070	60
	5	salman	lonavala	5050505050	52
	6	Jhonny	Pune	4040404040	20

```
UPDATE view1
SET name = 'Salman bhai'
WHERE customer2_id= 5;
```

	customer2_id	name	city	phone	age
▶	1	Bhavik	Pune	9090909090	20
	2	Shahrukh	Kolkata	8080808080	52
	3	Mukesh	Mumbai	7070707070	60
	5	Salman bhai	lonavala	5050505050	52
	6	Jhonny	Pune	4040404040	20

```
INSERT INTO view1(name,city,phone,age) VALUES
('Modi','Gujrat','1000000000','70');
```

	customer2_id	name	city	phone	age
▶	1	Bhavik	Pune	9090909090	20
	2	Shahrukh	Kolkata	8080808080	52
	3	Mukesh	Mumbai	7070707070	60
	5	Salman bhai	Ionavala	5050505050	52
	6	Jhonny	Pune	4040404040	20
	7	Modi	Gujrat	1000000000	70
✱	NULL	NULL	NULL	NULL	NULL

drop view view1;

128 •	show tables;
<	
Result Grid	Filter Rows:
▶	Tables_in_assign4
	customer
	customer2
	orders

