Friday, September 1, 2023 11:05 AM

Union - remove duplicates
Union all - does not remove duplicates

Intersect

```
Create table galleries(
id int Primary key,
city varchar(10)
);

Create table paintings(
id int primary key,
name varchar(10),
gallery_id int,
price int,
foreign key (gallery_id) references galleries(id));

insert into galleries values(1,'Jaipur'),(2,'Kolkata'),(3,'Madhunabi');

insert into paintings values (1,'patterns',3,5000),(2,'Ringer',1,4500),(3,'Gift',1,3200),(4,'violin
lessons',2,6700),(5,'curiosity',2,9800);

select * from galleries;

select * from paintings;

create table sales_agents(
id int primary key,
lastname varchar(10),
firstname varchar(10),
gallery_id int,
agency_fee int,
foreign key (gallery_id) references galleries(id));

Create table managers(
id int primary key,
gallery_id int,
foreign key (gallery_id) references galleries(id)
);
insert into managers values (1,2),(2,3),(4,1);
select * from managers;
insert into sales_agents values
(1,'Brown','Denis',2,2250),(2,'white','kate',3,3120),(3,'black','sarah',2,1640),(4,'smith','helen',1,4500),(5,'
stewart','tom',3,2130);
```

```
select * from sales_agents;

--- Single Row subquery
select avg(price) from paintings;
Select name, price, (select avg(price) from paintings) as AvgPrice from paintings;

select * from paintings where price>(select avg(price) from paintings);

--- multiple row subquery : returns multiple rows as output. (In, not in , any, all)
select avg(agency_fee) from sales_agents;
select avg(agency_fee) from sales_agents where id not in (select id from managers);

--- multiple col subquery : returns multiple cols

select id, name, price from paintings where (name,price) in (select name, min(price) from paintings);

--- Correlated subquery : subqueries that return multiple col output depending on the information
obtained from the parrent query

select g.city , count(p.gallery_id) from galleries g, paintings p where p.gallery_id=g.id group by
gallery_id;

select city, (select count(*) from paintings p where g.id=p.gallery_id) count_painting from galleries g;

find out the info of those sales agent whose agency fees is >=  avg agency fees of their galary.

select lastname,firstname,agency_fee from sales_agents sa1 where sa1.agency_fee >= (select
avg(agency_fee) from sales_agents sa2 where sa2.gallery_id=sa1.gallery_id);
```