SQL

1.Introduction to sql

SQL is used to manage,query, and manipulate relational databases in enterprise environments

Common sql commands :Select,insert,update,delete,create,drop,alter

```
select * from employees

select CURRENT_TIMESTAMP
select upper(name) from employees
select len(name) from employees
select count(*) from employees
select avg(salary) from employees
select sum(salary) from employees


insert into employees values(2,'ani','it',40000.0,'2026-12-03')
select * from employees

create table department(
        dept_id int,
        dept_name varchar(20)

);

create table employees1(
        dept_id int,
        emp_id int,
        name  varchar(20)
)
insert into employees1 values(1,1,'anvesh');
insert into employees1 values(2,2,'ani');

insert into department values(1,'sde')
insert into department values(2,'sde')
select * from department

select e.name,d.dept_name
from employees1 e
inner join department d
on e.dept_id=d.dept_id

select e.name,d.dept_name
from employees1 e
left join department d
on e.dept_id=d.dept_id

select department,count(*) from employees
```

```
group by department;

select ROUND(avg(salary),2)from employees;
select max(salary) as max_salary,min(salary) as min_salary from employees;

create view high_salary as
select name,salary from employees
where salary >2000

select * from high_salary


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select e.name,d.dept_name
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group by department;

select ROUND(avg(salary),2)from employees;
select max(salary) as max_salary,min(salary) as min_salary from employees;

create view high_salary as
select name,salary from employees
where salary >2000

select * from high_salary
select * from employees

select name,salary
from employees
where salary >(select avg(salary) from employees);

select * from department

select name
from employees
where department in(
                select dep_id from department where dept_id=1);
```

Difference between Delete, drop , Truncate

Delete : used to delete rows in the table and can be revoked
Drop : deletes table for permanent
Truncate: delete table content but remains schema

What is normalization:

Normalization is the process of SPLITTING OF DATA

Sql statement fundamentals:

Timestamp functions: current_timestamp
String functions: upper(),lower(),concat(),len() or length()
Aggregate function: count(),sum(),avg(),min(),max()

> what is difference between inner join and left join:

Inner join is used for both table common thing to takeout

Left join is used to extract all values in table 1 not in table 2

>What is a self join

Is used to join with the same table , and it dosenot has separate keyword can be used as left join or right ect