functions those are divided 2 types

1. aggregate

sum, min, max, avg, count

1. single row
   1. character
   2. numbers
   3. date

> select deptno,job,round(sum(sal),1),count(\*),min(sal)

-> from emp

-> group by deptno,job

------find sum of sal for all employees in deptno 10

select deptno,sum(sal)

from emp

where deptno=10

----------find sum of sal and avg for each department for all employees who are managers

select deptno,sum(sal),avg(sal)

from emp

where job=’MANAGER’

group by deptno

order by deptno;

-----find min sal for each department and arrange data based on min sal

select deptno,sum(sal),avg(sal),min(sal)

from emp

group by deptno

order by min(sal);

select deptno,sum(sal),sum(sal+ifnull(comm,0)) “snetsal”,min(comm)

from emp

group by deptno

order by sum(sal+ifnull(comm,0));

------display sum of sal , min sal, avg sal for each department, if the department has more than 5 employees

select deptno,sum(sal),min(sal),avg(sal),count(\*)

from emp

group by deptno

having count(\*)>5;

------display min sal, avg of sal+10% sal, avg comm

for all departments which has 2 managers

select deptno,min(sal),avg(sal+sal\*0.10),avg(ifnull(comm,0))

from emp

where job=’MANAGER’

group by deptno

having count(\*)>2

rules to remember for group by clause.

1. if condition is based on aggregate function then put condition in having clause
2. if condition is based on existing column or any derived column then add it in where clause
3. in select statement you can use only columns other than aggregate function, which are used in group by clause.

---------display sum,min,max,avg of sal and count of employees if there sal is>=1250 and <=3000

and if their manager is either 7698 or 7566

select sum(sal),min(sal),max(sal),avg(sal),count(\*)

from emp

where sal between 1250 and 3000 and mgr in (7698 , 7566)

------ display sum , avg, min, max, count for all employees who are working under same manager

select mgr,sum(sal),min(sal),max(sal),avg(sal),count(\*)

from emp

group by mgr;

-------distinct keyword ----- this will show you unique values

select distinct deptno

from emp;

select distinct job

from emp

select distinct mgr

from emp

-----DML -----Data manipulation language

insert, delete, update

--------insert all columns into a table

insert into dept

-> values(100,'xxxx','chennai');

----insert all columns but not following column sequence of desc atatement

insert into dept(dname,deptno,dloc)

-> values('xxxx',300,'chennai');

-------- insert few columns in a table

insert into dept(dname,deptno)

-> values(‘purchase’,40),

----- to insert multiple rows in one statement

insert into dept(deptno,dname,dloc)

-> values(100,'xxxx','chennai'),

-> (200,'yyy','Mumbai'),

-> (300,'zzz','Pune');

-------insert into dept(deptno,dloc) values(233,’Pune’)

---------modify data in existing rows

update dept

set loc=’Chennai’,dname=’HR’

where dname=’inssurance’;

-----delete data from table

delete

from emp

where deptno=10;

----which of the following will delete all rows from table

1. delete \* from emp;
2. delete from emp;
3. delete from emp where deptno is null;
4. both A and B

-------if you want to undo

rollback;

set autocommit=0;

commit;

rollback, commit, save point these are called as TCL (Transaction control language)

if I have dept table with 10 rows and autocommit is off

insert ----100

insert ---200

insert ----300

commit;

rollback;

select \* from dept;

-------------if I have student table with 13 rows in it and autocommit is off

insert -----100

insert -----200

insert--- 300

commit;

update -----100

delete 200

update 300

select \* from student;

13

15

16

10

------------student -----10 rows are there

100 rows

10 rows

savepoint A

7 –rows

savepoint B

8 rows

savepoint C

51

52

53

rollback To C

------to take backup of data

c:\mydata> mysqldump -u root -p root123 > d:\data\mydata.sql

------to upload data in sql

c:\mydata\data>mysql -u root -p root123 < d:\data\mydata.sql

or

mysql> source d:\data\mydata.sql

emp,dept,salgrade

mysql>source d:\data\mydata.sql

------to delete all table

drop table emp

drop table dept

drop table salgrade