operators		
[not] In	When you want to compare multiple values from same column with equal to operator then we use in operator	Select * From emp Where sal in (2000,3000,4000)
[not] between … and	We use this operator when we want to check range of values. and the limits are inclusive	Select * From emp Where sal between 2000 and 4000;
Is [not] null	When you want to check whether the value in the column is null or not, then use is null operator	Select * From emp Where comm is null;
>any or > all	This can be used when you want to write multiple values after > or < operator	Select * From emp Where sal > any(2000,3000)
[not] like	This can be used when you know the portion of the value. %-- to match 0 or more characters _ --- to match with single character	Select * From emp Where ename='S%'

1. Find all employees with name ends with R

```
Select *
From emp
Where ename like '%R'
```

2. Find all employees with name starts with M and ends with R

```
Select *
From emp
Where ename like 'M%R'
```

3. Find all employees with name has L at 3 rd position

```
Select *
From emp
Where ename like '__L%'
```

4. Find all employees with name has starts with M has L at 3 rd position and ends with R

```
Select *
From emp
Where ename like 'M_L%R'
```

5. Find all employees with name has L at 3 rd position and E at second last position

```
Select *
From emp
Where ename like '__L%E_'
```

6. To find all employees with name starts with either M or A

```
Select *
From emp
Where ename like ‘m%’ or ename like ’A%’
```

7. To find all employees with name starts with either M or A and last character can be either R or E

```
Select *
From emp
Where ename like ‘M%R’ or ename like ’M%E’ or ename like ‘A%R’ or ename like ‘A%E’;
```

```
Select *
From emp
Where ename REGEXP  ‘^[AM].*[RE]$;
```

REGEXP

*	O or more occurrences of preceding character	
?	O or 1 occurrences of preceding character	
+	1 or more occurrences of preceding character	
.	Matches with any one character	
[0-9]	Matches with digit	
[A-Za-Z]	Any alphabet	
{m}	Exactly m occurrences	
{m,n}	Minimum m occurrences and maximum n occurrences	
{m,}	At least m occurrences	
^	Check the pattern at the beginning of the stirng	
$	Checks the pattern at the end of the string	
(abc|xyz|pqr)	Match any one of the given pattern, si either abc or xyz orpqr	
[^abc]	Will match with any character other than abc	

ab+c
abc, abbc, abbbc, abbbbbbbbbc
ab*c
ac, abc,abbc,abbbc,……

a.*d ------ .* is similar to % in like
ad,adhjfgjdhdgfd

a..L.*x
abcLx

^[0-9]{10}$

8. To find all employee with name starts with a or m and ends with e

```
Select *
From emp
Where ename REGEXP '^[am].*e$'
```

9. Find all employees with name starts with A and ends with e, or it may starts with s and ends with h

```
Select *
From emp
Where ename REGEXP '^A.*e$|^S.*h$'
```

10. Find all employees with name not starting with A or M

```
Select *
   -> From emp
   -> where ename  REGEXP '^[^AM]';
```

11. to find increased sal by 1/3

```
Select empno,ename,sal,sal+sal*(1/3)
From emp;
```

Functions for numbers

round	Round(number, precision)	Round(4.578,2) ===4.58	
truncate	Truncate(number, precision)	truncate(4.578,2) ===4.57	
abs	To convert -ve number into +ve number	Abs=(-d)	
ceil	This will remove fraction portion of the given number and give the next number		
floor	This will remove fraction portion of the given number, always gives the same number		
Mod	To find remainder of division		

11. Find all employees whose sal is divisible by 3

```
Select empno,ename,sal,mod(sal,3)
From emp
Where mod(sal,3)=0;
```

Functions for string

Upper	Convert all alphabets of the given string in capital	Select upper(“hello”);
Lower	Convert all alphabets in lower case	Select lower(“HELLO”);
Concat	Used to concatenate many strings	Select concat(‘Hello’, ‘ World!!’)
Lpad	It add some string on the leftside to make length of all strings equal	Select lpad(‘Hello’,10,’*’)
Rpad	It add some string on the right side to make length of all strings equal	Select lpad(‘Hello’,10,’*’)
Substr	It retrieves the portion of the string	Select substr(‘Hello’,1,2)

```
Select lower(ename),empno,sal
From emp
Where upper(ename)=’SMITH’;
```

17. write a query to display all jobs, add * on the right side of the job so that all jobs will appear in length of 1 to 10

```
Select ename,empno,rpad(job,10,’*’)
From emp;
```

18. write query to display name followed by 4 stars followed by sal

```
Select empno,concat(ename,’****’,sal) informtion
From emp;
```

10. display email as ename followed by mycompany.com

```
select empno,ename,concat(ename,'@mycompany.com')
   -> from emp;
```

12. Display email as 1st 3 chacarters of ename, followed by dot, followed by 2 and 3rd character of jobs,followed by @mycompany.com

```
Select empno,ename,job,concat(substr(ename,1,3),'.',substr(job,2,2)),'@mycompany.com')
From emp;
```

13. To display all employees empno, ename, sal , increased sal by 10% ,also add commission For all employees whose name starts with a,m or s

```
Select empno,ename,sal,round(sal+0.10*sal+ifnull(comm,0),2) netsal
From emp
Where ename REGEXP '^[ams]';
```

14. Display all employees with sal >1000 and sal<3000 and job has a at starting position and ends with t

```
Select *
From emp
Where sal between 1001 and 2999 and job like 'a%t'
```

15. Select all employee with job is either CLERK or SALESMAN and sal >2000

```
Select *

From emp

Where sal>2000 and job in ('CLERK','SALESMAN');
```

16. Display all employees whose name starts with A and ends with either n or s, or works in dept 10

```
Select *
From emp
Where ename REGEXP '^A.*[ns]$' or deptno =10;
```

17. Display all employees who works in either dept 10 or 30 or joined in year 1982

```
Select *
From emp
Where deptno in (10,30) or hiredate between '1982-01-01' and '1982-12-31';
```

18. Display all employees with sal >2000 or job is either clerk or Salesman

```
Select *
From emp
Where sal>2000 or job in ('CLERK','SALESMAN');
```

19. Display string "Hello" followed by name followed by ! for all employees who earned commission

```
Select concat('Hello ',ename,'!')

From emp

Where comm is not null or comm !=0;
```

20. display all names length of each name should be 10 characters , add required spaces on left side of name, also display jobs, length of jobs should be 9 characters add required – on the right side of job

```
select lpad(ename,10,' '), rpad(job,9,'-')
from emp;
```

21. list all departments whose name has atleast 5 characters.

```
Select *
From dept
Where dname REGEXP ‘^[A-Za-z]{5}’
```