* metacharacter (see all columns)

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Insert values into the table:
insert into emp values ('5 , null', 5000 , null, null) ;

* If you want to Insert multiple rows using a single Insert statement:

```
→ insert into emp values (1, 'king', 3000, 'mumbai' 1990-0
                         (2, 'scott', 4000, 'Delhi', 1990-02-
                         (3, Adams, 5000, 'mumbai', 1990-
```

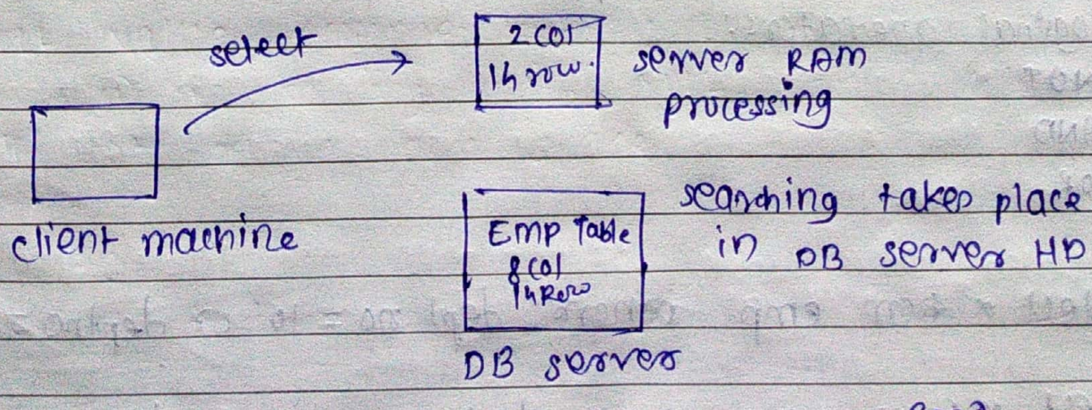
* Number to CHAR automatic conversion in MySQL RDBMS and oracle RDBMS.

```
insert into emp (empno, sal) values ('1', 5000),
                                    ('2', 3000),
                                    ('3', 6000);
```

* Above two insert statements are supported by mysql RDBMS not supported by oracle RDMS.

- In oracle RDBMS, if you want to insert multiple rows then you will require a statement Insert statement for each row.

- To restrict columns:
  select empno, empname ;



Read
compile
Plan
Execute

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- select deptno, job, ename, sal, hiredate from emp;

- The position of columns in select statement will determine the position of column in output.

- you will write the select statment as per user requirement

- To restrict rows:

  WHERE clause:

  select * from emp
  where deptno = 10;

- where clause is used for searching
- searching takes place in DB server HD.
- where clause is used to restrict the rows.
- where clause is used to retrieve the rows from DB server HD to server RAM.

- select * from emp where sal >5000;

- Relational Operators:

  >, >=, <, <=, !=, =

- select * from emp where sal >2000 and sal <3000;

- Logical operaters:

  1) NOT
  2) AND
  3) OR

- select * from emp where dept no = 10 or deptno = 20;

- select * from emp where deptno = 10 and deptno = 20;

- select * from emp where job = 'manager';

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- Data is case-sensitive in mysqL RDBMS and oracle
- queries are case-insensitive in mysqL
- queries are case-sensetive in oracle RDBMs.

select * from emp where job = 'manager' or job = 'clerk';
—||— and —||—

- select ename, sal, sal*12 from emp;

sal*12 is not a column of Emp table
sal*12 is known as computed column (derived column)

- Arithmetic operators:

1) ( )
2) ** used for exponentiation sal**1/3
sal**(1/3)
3) /
4) *
5) +
6) —

- In mysqL if you want to perform exponential", you will have to use power function
- Alias : एलियस

select ename, sal, sal*12 as "ANNUAL" from emp;

- as → optinal keyword in mysqL

select ename, sal, sal*12 "ANNUAL" from emp;

- Double quotes → optional

select ename, sal, sal*12 annual from emp;

* you cannot use alias in where clause.

select ename, sal, sal*12 annual from emp where annual < 100000 ; ← error.

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- select name "EMPNAME", sal "SALARY", sal*12 "ANNUAL", sal* 12*0.4 "HRA", sal*12*0.2 "DA"
  sal*12 + sal*12*0.4 + sal*12*0.2 "NET" from emp;

select job from emp;

- restrict duplicate:

select distinct job from emp;

select deptno, job, ename, sal, hiredate from emp;

- In DBMS, data is stored in a file.
- Data is stored sequentially in DBMS.

In RDBMS table is not a file.
every row is a file.
Rows of table are not stored sequentially.
Rows of table are scattered (fragmented) all over the DB server HDD

- when you INSERT into a table, whenever the system finds the free space in the DB server HD, it will store the row there.
- The reason that RDBMS does this, is to speed up the INSERT statement
- when you select a table, the order of rows in the output depends on row address.
- it will always be in ascending order of row address.

- when you update a row, if the row length is increase then the entire row may be moved to some other address.
- Later when you SELECT from the table, you will find the row at some other position in the output.

It is only in the case of VARCHAR that the row length may increase/ decrease.
hence it is not possible to view the first/ last n row of table,

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* order by clause - used for sorting

- select deptno, job, ename, sal ,hiredate from emp
  order by ename;

- select dept, job, ename, sal from e~~na~~mp order by
  ename desc;

asc (by default)
desc;

order by sorting - Used for presentation purpose.

- sorting is one of the operation that always slows down
  the select statement.
- sorting takes place in server RAM.

- select ename, sal*12 from emp;
- select ename, sal*12 from emp order by sal*12;
- select ename, sal*12 ~~from~~ annual from emp order by
  annual;
- select ename, sal*12 "Annual salary" from emp
  order by "Annual salary";
- select ename, sal*12 "Annual salary" from emp
  order by 2;

- select * from emp order by 2;
- select * from emp where dept=10 order by ename;

- where clause is specified before ORDER BY clause.

Imp
- ORDER BY clause is the last clause in SELECT statement