**SUB QUERIES**

A query with in the other query is known as Nested query. Sub query is one type of Nested Query.

***"A select query under where clause of other select query is known as Sub Query."***

Sub queries are preferable to display output from one table and having an input value from another table. To write a subquery we need at least one common column.

SYNTAX:

select ..... from table... where <cond> ( select ..... from table... where <cond>( select.......).....);

**Hints:**

i) Based on output table we can write outer query.

ii) Based on input value table we can write sub query.

NOTE: Execution process of a subquery is from innermost query to the outermost.

TYPES OF SUBQUERIES:

*1) Single row subquery*:

A sub query, which select a value from single record. In this case in between the outer and inner queries we can use **=** operator.

SYNTAX:

select . . . . from . . . where col =(select . . . . from . . . where. . . );

*2) Multi row sub query*:

A sub query, which select values from multiple records. In this case in between the outer and inner queries we can use IN operator.

SYNTAX:

select . . . . from . . . where col **IN** (select . . . . from . . . where. . . );

Ex: display department details of employee smith?

select \* from dept

where deptno IN(select deptno from emp where ename='SMITH');

Ex:

By using join Query:

select d.\* from emp e, dept d

where e.ename='SMITH' and e.deptno=d.deptno;

Ex: Display employee details who is working under PRODUCTION?

select \* from emp where deptno=(select deptno from dept where dname='PRODUCTION');

Ex: display the department details of all managers?

select \* from dept

where deptno IN(select deptno from emp where job='MANAGER');

Ex: display accounting department employee details?

select \* from emp where deptno=(select deptno from dept where dname='ACCOUNTING');

Ex: display product details from the company sony?

select \* from prod\_dtls where prod\_comp\_code=(select comp\_code from comp\_dtls where comp\_name='sony');

Ex: display product details from the companies other than sony, samsung?

select \* from prod\_dtls where prod\_comp\_code IN(select comp\_code from comp\_dtls where comp\_name NOT IN('sony','samsung'));

Ex: display company names of the prod ids p003,p007?

select comp\_name from comp\_dtls where comp\_code IN( select prod\_comp\_code from prod\_dtls where prodid IN('p003','p007'));

🡪Get account type information for the customer " cust-1 "?

select \* from act\_types where act\_type IN(select act\_type from cust\_act\_dtls where cust\_code='cust-1');

🡪Get act\_types details of customers who is from delhi?

select \* from act\_types where act\_type IN(select act\_type from cust\_act\_dtls where cust\_code in( select cno from cust\_dtls where city='Delhi'));

🡪Get customer details who is maintaining Savings Bank A/c.?

select \* from cust\_dtls where cno in(select cust\_code from cust\_act\_dtls where act\_type=(select act\_type from act\_types where act\_name='Savings Bank A/c.'));