|  |  |  |
| --- | --- | --- |
| **. 8** | **S U B Q U E R I E S** | **Date :** |

* Nesting of queries, one within the other is termed as sub query.

# Syntax

SELECT *select\_list*

FROM *table*

WHERE *expr operator* ( SELECT *select\_list*

FROM *table*);

* The subquery (inner query) executes once before the main query.
* The result of the subquery is used by the main query (outer query).

# Guidelines for Subqueries

* Enclose subqueries in parentheses.
* Place subqueries on the right side of the comparison operator.
* Do not add an ORDER BY clause to a subquery.
* Use single-row operators with single-row subqueries.
* Use multiple-row operators with multiple-row subqueries.

# Single-Row Subqueries

* **Return only one row**
* **Use single-row comparison operators (ie; relational operators)**

# Multiple-Row Subqueries

* **Return more than one row**
* **Use multiple-row comparison operators**

|  |  |
| --- | --- |
| ***Operator*** | ***Meaning*** |
| **IN** | Equal to **any** member in the list |
| **ANY** | Compare value to **each value** returned by the subquery |
| **ALL** | Compare value to **every value** returned by the subquery |

# Note:

‘**=any**’ is equivalent to ‘**in**’ ‘**!=all**’ is equivalent to ‘**not in**’

# Data for EMP table (SAME TABLE USED FOR Ex 6)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |
| 7369 | SMITH | CLERK | 7902 | 17-DEC-80 | 800 |  | 20 |
| 7499 | ALLEN | SALESMAN | 7698 | 20-FEB-81 | 1600 | 300 | 30 |
| 7521 | WARD | SALESMAN | 7698 | 22-FEB-81 | 1250 | 500 | 30 |
| 7566 | JONES | MANAGER | 7839 | 02-APR-81 | 2975 |  | 20 |
| 7654 | MARTIN | SALESMAN | 7698 | 28-SEP-81 | 1250 | 1400 | 30 |
| 7698 | BLAKE | MANAGER | 7839 | 01-MAY-81 | 2850 |  | 30 |
| 7782 | CLARK | MANAGER | 7839 | 09-JUN-81 | 2450 |  | 10 |
| 7788 | SCOTT | ANALYST | 7566 | 19-APR-87 | 3000 |  | 20 |
| 7839 | KING | PRESIDENT |  | 17-NOV-81 | 5000 |  | 10 |
| 7844 | TURNER | SALESMAN | 7698 | 08-SEP-81 | 1500 | 0 | 30 |
| 7876 | ADAMS | CLERK | 7788 | 23-MAY-87 | 1100 |  | 20 |
| 7900 | JAMES | CLERK | 7698 | 03-DEC-81 | 950 |  | 30 |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 |  | 20 |
| 7934 | MILLER | CLERK | 7782 | 23-JAN-82 | 1300 |  | 10 |

**Data for DEPT table**

|  |  |  |
| --- | --- | --- |
| DEPTNO | DNAME | LOC |
| 10 | ACCOUNTING | NEW YORK |
| 20 | RESEARCH | DALLAS |
| 30 | SALES | CHICAGO |
| 40 | OPERATIONS | BOSTON |

**Q1)** List the name of the employees whose salary is greater than that of employee with empno 7566.

**Q2)** List the name of the employees whose job is equal to the job of employee with empno 7369 and salary is greater than that of employee with empno 7876.

# SQL>

**Q3)** List the *ename,job,sal* of the employee who get minimum salary in the company.

**Q4)** List *deptno & min(salary)* departmentwise, only if *min(sal)* is greater than the

*min(sal)* of *deptno* 20.

**SQL>**

**Q5)** List *empno, ename, job* of the employees whose *job* is not a ‘CLERK’ and whose *salary* is less than at least one of the salaries of the employees whose *job* is ‘CLERK’.

**Q6)** List *empno, ename, job* of the employees whose salary is greater than the average salary of each department.

# SQL>

**Q7)** List *ename, job, sal* of the employees whose salary is equal to any one of the salary of the employee ‘SCOTT’ and ‘WARD’.

# SQL>

**Q8)** List *ename, job, sal* of the employees whose salary and job is equal to the employee ‘FORD’.

# SQL>

**Q9)** List *ename, job, deptno, sal* of the employees whose job is same as ‘JONES’ and

*salary* is greater than the employee ‘FORD’.

# SQL>

**Q10)** List *ename, job* of the employees who work in *deptno* 10 and his/her *job* is any one of the job in the department ‘SALES’.

# SQL>

***Verified by***

**Date :**

**Staff In-charge Sign :**