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| **Topic** | Oracle SQL Language Fundamentals I |
| **Document Name** | SQL03-EX-01-05 |
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## Exercise SQL03-EX-01:

**Definiton :** Write followig SQL queries:

* Add a colum to employees table named MAX\_SALARY.
* Update MAX\_SALARY with maximum salary amount with subquery.
* Delete employee who have minimum salary using subquery.

**SQL:**

ALTER TABLE HR.EMPLOYEES ADD (MAX\_SALARY NUMBER);

UPDATE HR.EMPLOYEES SET MAX\_SALARY = (SELECT MAX(SALARY) FROM HR.EMPLOYEES);

DELETE FROM HR.EMPLOYEES WHERE SALARY = (SELECT MIN(SALARY) FROM HR.EMPLOYEES);

SELECT employee\_id, first\_name, last\_name, salary, MAX\_SALARY FROM HR.EMPLOYEES;

## Exercise SQL03-EX-02:

**Definiton :** Write followig SQL queries:

* Define index (named DPR\_NAME\_IDX) on DEPARTMENT\_NAME column of DEPARTMENTS table.
* Define constraint (named CNSTR\_SALARY) on employee salary. (Salary must be between 1000$ and 100.000$)
* Drop defined index.
* Enable, disable, drop defined constraint.

**SQL:**

CREATE INDEX DPR\_NAME\_IDX ON HR.DEPARTMENTS(DEPARTMENT\_NAME);

ALTER TABLE HR.EMPLOYEES ADD CONSTRAINT CNSTR\_SALARY CHECK (SALARY BETWEEN 1000 AND

100000);

DROP INDEX DPR\_NAME\_IDX;

ALTER TABLE HR.EMPLOYEES DISABLE CONSTRAINT CNSTR\_SALARY;

ALTER TABLE HR.EMPLOYEES ENABLE CONSTRAINT CNSTR\_SALARY;

ALTER TABLE HR.EMPLOYEES DROP CONSTRAINT CNSTR\_SALARY;

## Exercise SQL03-EX-03:

**Definiton :** Create a table from EMPLOYEES with distinct department\_id column. Add department\_name to that table. With DEPARTMENTS table, update department\_name for included department\_ids and insert department\_id and department\_name values for not included rows. Use MERGE keyword.

**SQL:**

CREATE TABLE NEW\_TABLE AS SELECT department\_id, department\_name FROM HR.departments;

MERGE INTO NEW\_TABLE t

USING HR.departments d ON (t.department\_id = d.department\_id)

WHEN MATCHED THEN UPDATE SET t.department\_name = d.department\_name

WHEN NOT MATCHED THEN INSERT (department\_id, department\_name) VALUES (d.department\_id,

d.department\_name);

## Exercise SQL03-EX-04:

**Definiton :** Using **WITH** keyword, do following jobs:

* Firstly select first\_name, last\_name, job\_id, department\_id from employees table whoes job\_id starts with ‘S’.
* Additionally select job\_title and min-max salary amount.
* Add department\_name to that query.
* Lastly concat first\_name and last\_name with space as full\_name alias and list with other selected columns.

**SQL:**

SELECT e.first\_name || ' ' || e.last\_name AS full\_name,e.job\_id,e.department\_id,j.job\_title,

MIN(e.salary) AS min\_salary,

MAX(e.salary) AS max\_salary

FROM HR.employees e

JOIN HR.jobs j ON e.job\_id = j.job\_id

JOIN HR.departments d ON e.department\_id = d.department\_id

WHERE e.job\_id LIKE 'S%'

GROUP BY e.first\_name, e.last\_name, e.job\_id, e.department\_id, j.job\_title;

## Exercise SQL03-EX-05:

**Definiton :** Search for COMMIT and ROLLBACK keywords and explain them.

**SQL:**

**COMMIT** is like hitting "save" to keep all your changes. **ROLLBACK** is like hitting "undo" to get rid of all your changes.