

# DML and DCL – Advanced DML

# Insert Query – Advanced Options

## Copy and Insert

### Syntax:-

```
INSERT INTO table_name [(column list)] (sub query);
```

### Example:-

```
INSERT INTO Student_Total_Marks  
(SELECT m.student_id, sum(m.marks) AS Total_Marks  
FROM tc_marks m GROUP BY m.student_id);
```

## Copy and Insert

Here the output of the subquery (the select query inside the brackets) will be inserted into the table

```
SQL> select * from Student_Total_Marks;
no rows selected

SQL> Insert into Student_Total_Marks
  2  (select m.student_id, sum(m.marks) as Total_Marks
  3  from tc_marks m group by m.student_id);

7 rows created.

SQL> commit;
Commit complete.

SQL>
SQL> select * from Student_Total_Marks;

STUDENT_ID  TOTAL_MARKS
-----
1003                327
1006                307
1001                381
1002                307
1007                266
1004                171
1005                229

7 rows selected.
```

## Multi-Table INSERT

This feature of Oracle allows user to define multiple insert targets.

### Syntax:-

```
INSERT ALL|FIRST  
    [WHEN condition THEN] INTO target [VALUES]  
    [WHEN condition THEN] INTO target [VALUES]  
    ...  
    [ELSE] INTO target [VALUES]  
SELECT ...  
FROM   source_query;
```

## Multiple records insertion in the same table

Example :

**INSERT ALL**

**INTO Employee\_Details (salary, employee\_id, name, age)**

**VALUES (15000, 2001, 'Anurag Sidd', 25)**

**INTO employee\_details (salary, employee\_id, name, age)**

**VALUES (17000, 2002, 'Priyanka Madhur', 23)**

**SELECT 1 FROM DUAL;**

## Multiple records insertion in the same table

```
SQL> select * from employee_details;

no rows selected

SQL> insert ALL
  2      into employee_details (salary, employee_id, name, age)
  3      values (15000, 2001, 'Anurag Sidd', 25)
  4      into employee_details (salary, employee_id, name, age)
  5      values (17000, 2002, 'Priyanka Madhur', 23)
  6  select 1 from dual;

2 rows created.

SQL> commit;

Commit complete.

SQL> select * from employee_details;
```

SALARY	EMPLOYEE_ID	NAME	AGE
15000	2001	Anurag Sidd	25
17000	2002	Priyanka Madhur	23



## Records insertion in multiple tables

Example :

**INSERT ALL**

**INTO Employee\_Details (salary, employee\_id, name, age)**

**VALUES (16000, 2003, 'Madhav Mhajan', 24)**

**INTO Project\_Details(project\_id, project\_name, client\_name)**

**VALUES (11, 'Project 1', 'Client 1')**

**INTO Project\_Allocation (project\_id, employee\_id)**

**VALUES (11, 2003)**

**SELECT 1 FROM DUAL;**

## Records insertion in multiple tables

```
SQL> insert ALL
  2      into employee_details (salary, employee_id, name, age)
  3      values (16000, 2003, 'Madhav Mhajan', 24)
  4      into project_details (project_id, project_name, client_name)
  5      values (11, 'Project 1', 'Client 1')
  6      into project_allocation (project_id, employee_id)
  7      values (11, 2003)
  8  select 1 from dual;
```

3 rows created.

```
SQL> select * from Project_Allocation;
```

PROJECT_ID	EMPLOYEE_ID
11	2003

```
SQL> select * from Project_details;
```

PROJECT_ID	PROJECT_NAME	CLIENT_NAME
11	Project 1	Client 1

```
SQL> select * from Employee_details;
```

SALARY	EMPLOYEE_ID	NAME	AGE
15000	2001	Anurag Sidd	25
17000	2002	Priyanka Madhur	23
16000	2003	Madhav Mhajan	24



## Copying Records to multiple tables

Example :

```
INSERT ALL  
    INTO Employee_Details_23  
    INTO Employee_Details_24  
    INTO Employee_Details_25  
SELECT * FROM Employee_Details;
```

All the data from the table Employee\_Details will get copied to the three tables Employee\_details\_23, Employee\_details\_24 and Employee\_details\_25

Note: - Here all the four tables should have identical table structures.

## Copying Records to multiple tables

```
SQL> select * from Employee_details;
```

SALARY	EMPLOYEE_ID	NAME	AGE
16000	2003	Madhav Mhajan	24
15000	2001	Anurag Sidd	25
17000	2002	Priyanka Madhur	23
16000	2003	Madhav Mhajan	24

```
SQL> insert ALL  
2      into employee_details_23  
3      into employee_details_24  
4      into employee_details_25  
5  select * from employee_details;
```

```
12 rows created.
```

# Conditional Multiple Inserts

Example :

```
INSERT FIRST
  WHEN age = 23
  THEN
    INTO Employee_Details_23 (salary, employee_id, name, age)
    VALUES (salary, employee_id, name, age)
  WHEN age = 24
  THEN
    INTO Employee_Details_24 (salary, employee_id, name, age)
    VALUES (salary, employee_id, name, age)
  WHEN age = 25
  THEN
    INTO Employee_Details_25 (salary, employee_id, name, age)
    VALUES (salary, employee_id, name, age)
SELECT * FROM Employee_Details;
```

Here the data from the table Employee\_Details will be copied to the three tables Employee\_details\_23, Employee\_details\_24 and Employee\_details\_25 according to the condition

**Note:-** The columns in purple colour are from the source table Employee\_Details

## Conditional Multiple Inserts

```
SQL> select * from employee_details;
```

SALARY	EMPLOYEE_ID	NAME	AGE
16000	2004	Leeya Jondur	26
15000	2001	Anurag Sidd	25
17000	2002	Priyanka Madhur	23
16000	2003	Madhav Mhajan	24

```
SQL> INSERT FIRST
 2      WHEN age = 23
 3      THEN
 4          INTO employee_details_23 (salary, employee_id, name, age)
 5          VALUES (salary, employee_id, name, age)
 6      WHEN age = 24
 7      THEN
 8          INTO employee_details_24 (salary, employee_id, name, age)
 9          VALUES (salary, employee_id, name, age)
10      WHEN age = 25
11      THEN
12          INTO employee_details_25 (salary, employee_id, name, age)
13          VALUES (salary, employee_id, name, age)
14  select * from employee_details;

3 rows created.
```

**Thank You**