

Quadrant II – Transcript and Related Materials

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Unit: II

Module Name: Embedded Queries in SQL: Insert, Delete and Update statements in SQL

Module No: 16

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Notes

Embedded Queries in SQL: Insert, Delete and Update statements in SQL

- A Subquery or Inner query or a Nested query is a query within another SQL query and embedded within the WHERE clause.
- A subquery is used to return data that will be used in the main query as a condition to further restrict the data to be retrieved.
- A subquery, also known as a nested query or subselect, is a SELECT query embedded within the WHERE or HAVING clause of another SQL query.
- The data returned by the subquery is used by the outer statement in the same way a literal value would be used.
- Subqueries provide an easy and efficient way to handle the queries that depend on the results from another query.
- Subqueries are most frequently used with the SELECT statement; however you can use them within an INSERT, UPDATE, or DELETE statement as well, or inside another subquery.

SELECT Statement

- The following statement will return the details of only those customers whose order value in the *orders* table is more than 5000 dollar. Also note that

- DISTINCT eliminates the duplicate *cust_id* values from the result set. `SELECT * FROM customers WHERE cust_id IN (SELECT DISTINCT cust_id FROM orders WHERE order_value > 5000);`
`SELECT * FROM customers WHERE cust_id IN (SELECT DISTINCT cust_id FROM orders WHERE order_value > 5000);`
- A subquery can return a single value, a single row, a single column, or a table containing one or more rows of one or more columns.

INSERT Statement

- The following statement insert the records of premium customers into a table called *premium_customers*, by using the data returned from subquery.
- Here the premium customers are the customers who had placed order worth more than 5000 dollar.

```
INSERT INTO premium_customers SELECT * FROM customers WHERE cust_id IN
(SELECT DISTINCT cust_id FROM orders WHERE order_value > 5000);
```

UPDATE Statement

- The following statement updates the order value in the *orders* table for those customers who live in the area whose postal code is 75016, by increasing the current order value by 10 dollar.

```
UPDATE orders SET order_value = order_value + 10 WHERE cust_id IN (SELECT
cust_id FROM customers WHERE postal_code = 75016);
```

DELETE Statement

- The following statement deletes those orders from the *orders* table that contains the product whose *product_id* is 5.

```
DELETE FROM orders WHERE order_id IN (SELECT order_id FROM order_details WHERE
product_id = 5);
```