Instructor Notes:

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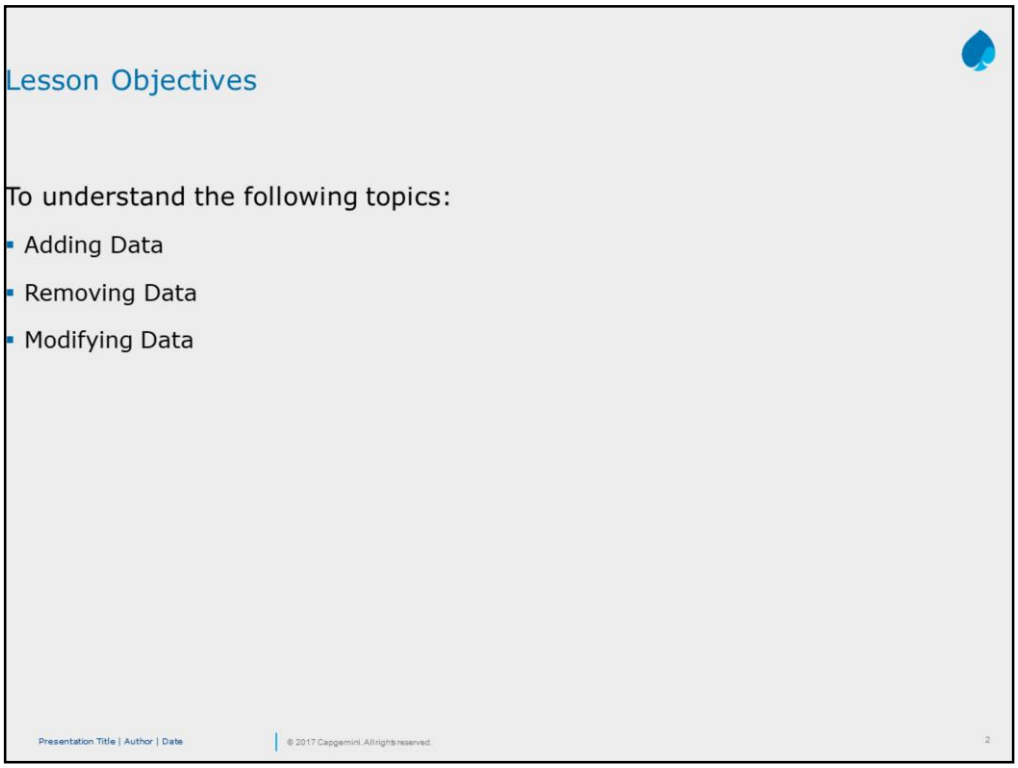

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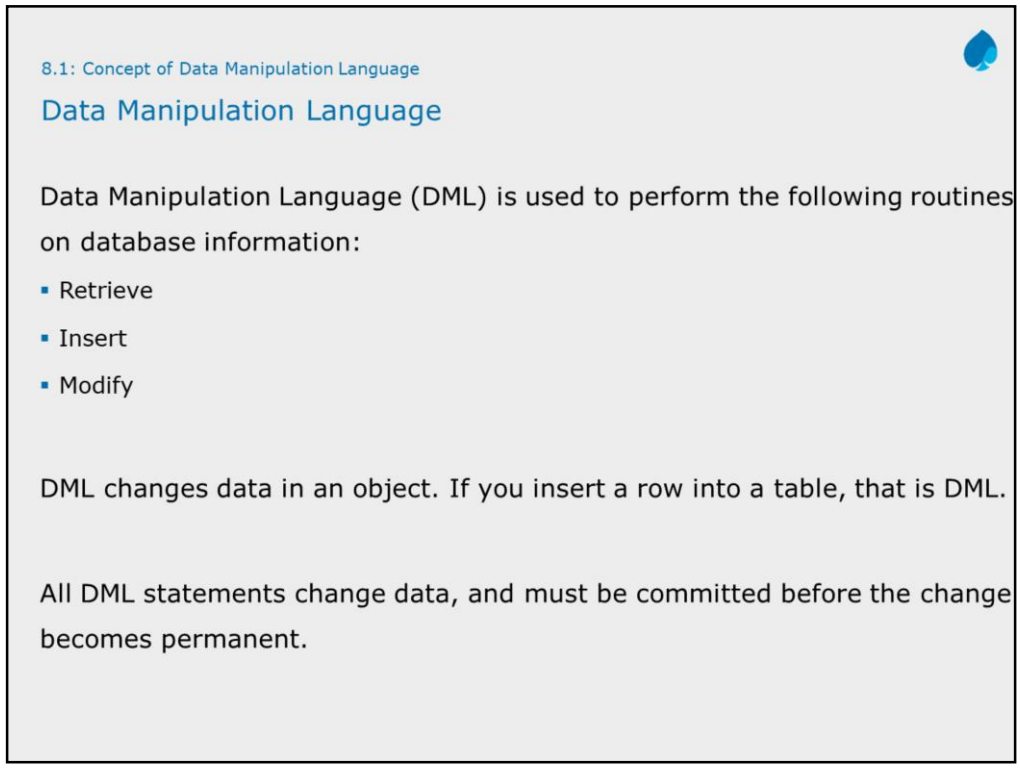

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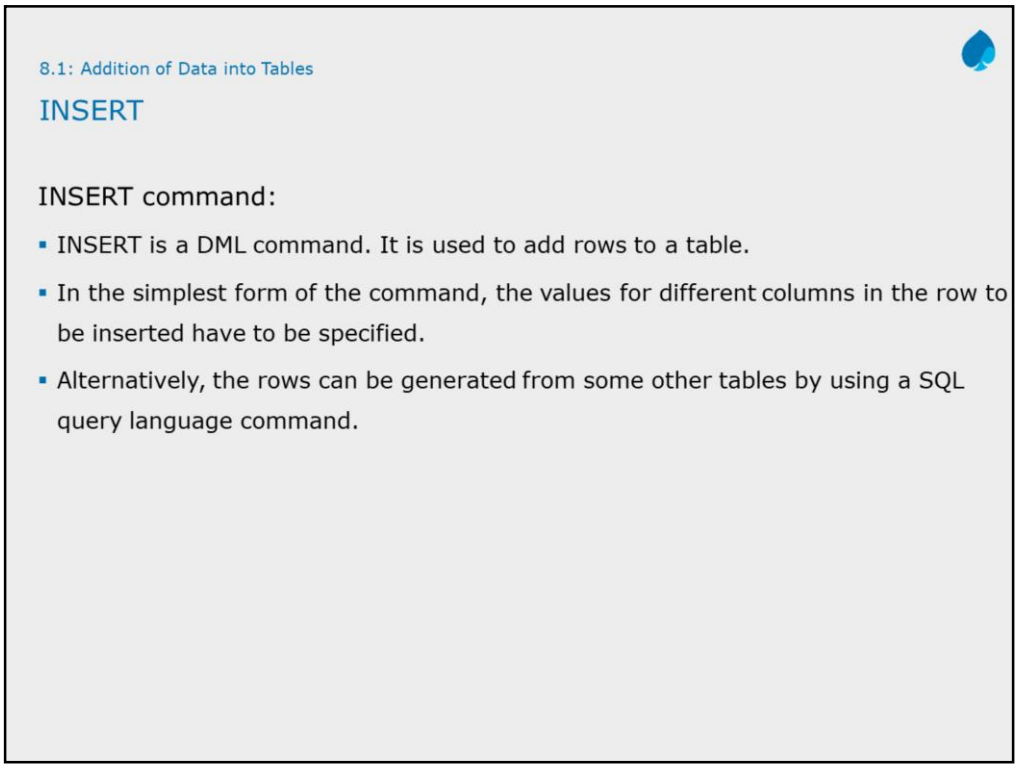
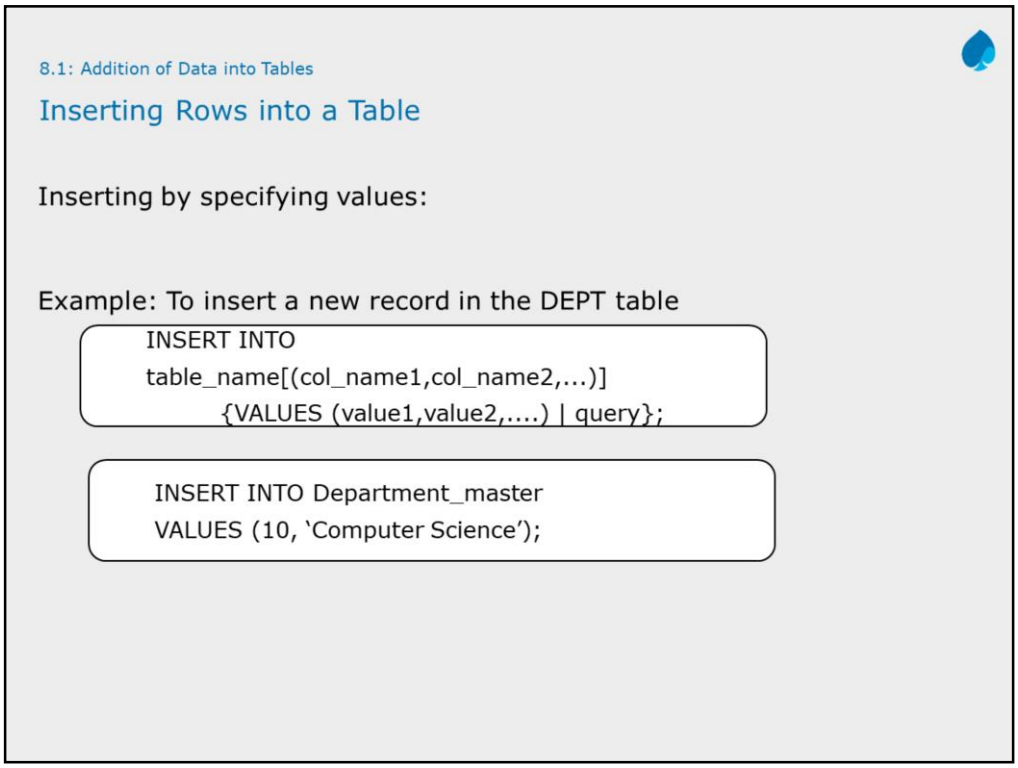


Addition of Data into Tables:

Requisites for using INSERT command:

- If values are specified for all columns in the order specified at creation, then col_names could be omitted.
- Values should match “data type” of the respective columns.
- Number of values should match the number of column names mentioned.
- All columns declared as NOT NULL should be supplied with a value.
- Character strings should be enclosed in quotes.
- Date values should be enclosed in quotes.
- Values will insert one row at a time.
- Query will insert all the rows returned by the query.
- The table_name can be a “table” or a “view”. If table_name is a “view”, then the following restrictions apply:
    1. The “view” cannot have a GROUP BY, CONNECT BY, START WITH, DISTINCT, UNION, INTERSECT, or MINUS clause or a join.
    2. If the “view” has WITH CHECK OPTION clause, then a row, which will not be returned by the view, cannot be inserted.

Instructor Notes:



Inserting Rows into a Table:

Example:

- Inserting a row in EMP table giving all values.

```
INSERT INTO student_master
VALUES(1001,'Amit',10,'11-Jan-80','Chennai');
```

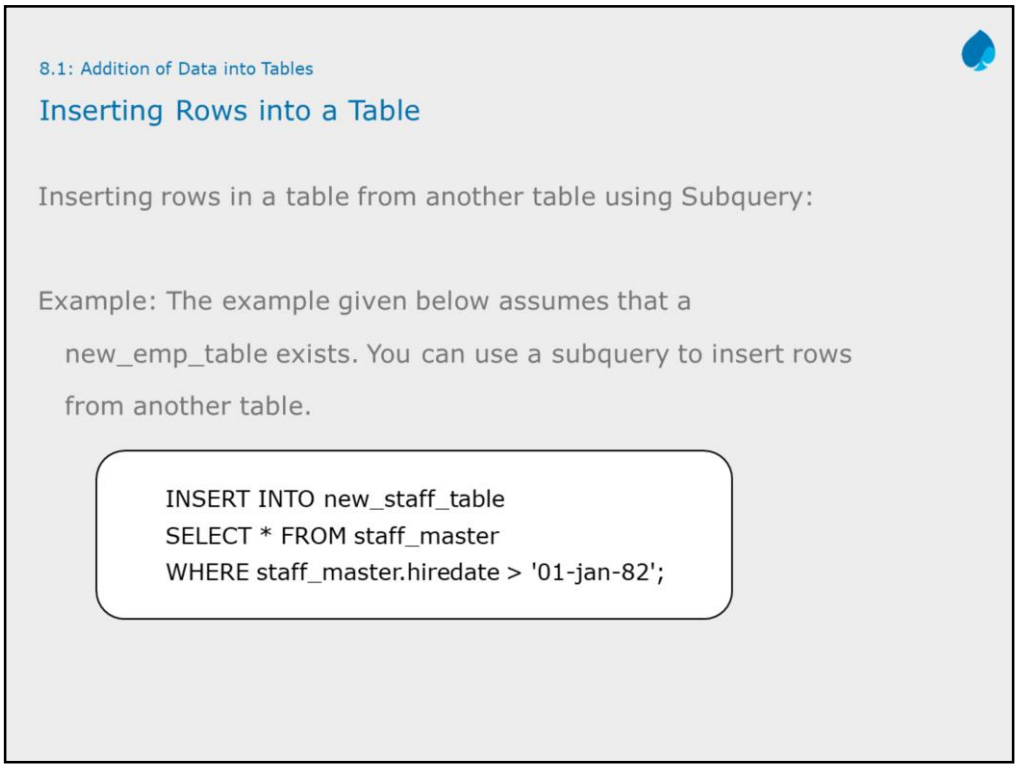
  - 10 is a dept number which exists in DEPARTMENT_MASTER table

- Inserting a row in STAFF_MASTER table giving some values.

```
INSERT INTO staff_master
(staff_code,staff_name,design_code,dept_code)
VALUES(100001,'Arvind',102,30);
```

  - This row will be created if all the constraints like NOT NULL are satisfied.

Instructor Notes:



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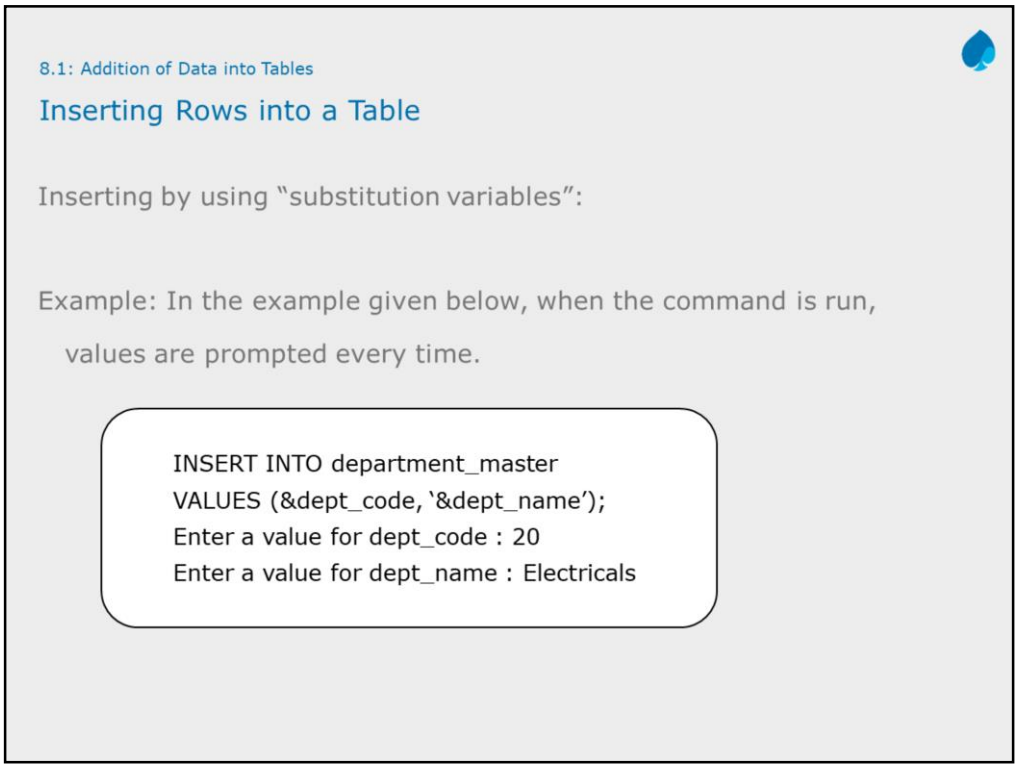
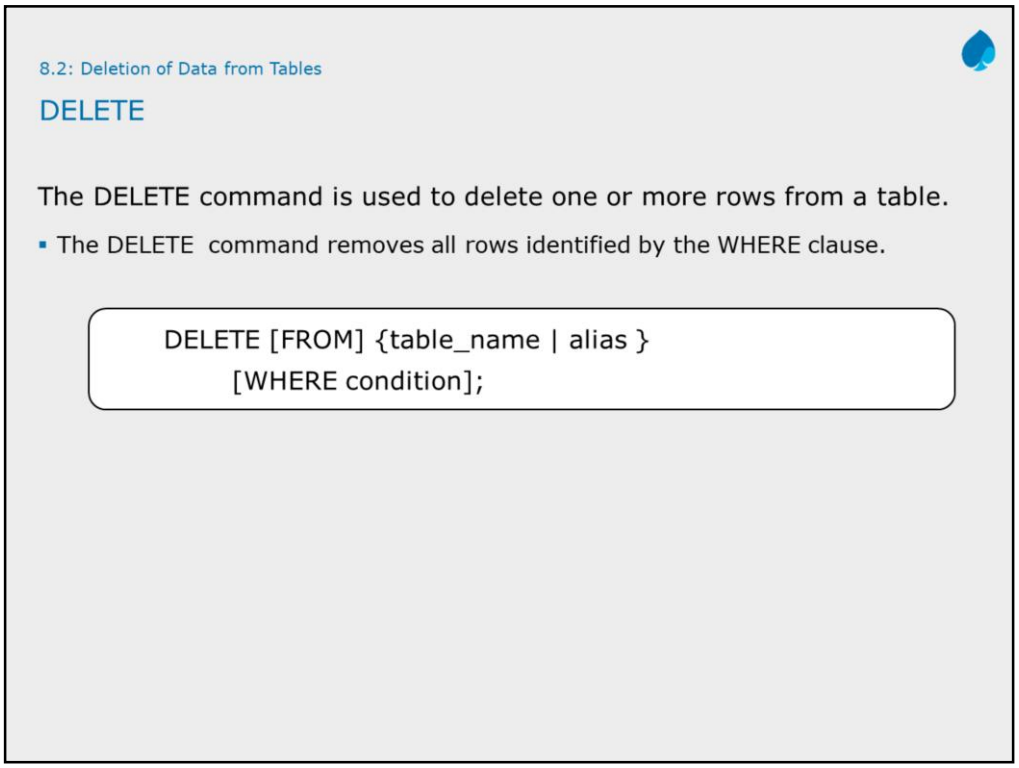


Inserting Rows into a Table:

Inserting by using "substitution variables":

- The problem with the INSERT statement is that it adds only "one row" to the table.
- However, by using "substitution variables" the speed of data input can be increased.
- Whenever a "substitution variable" is placed in a "value" field, the user will be prompted to enter the "actual value" when the command is executed.

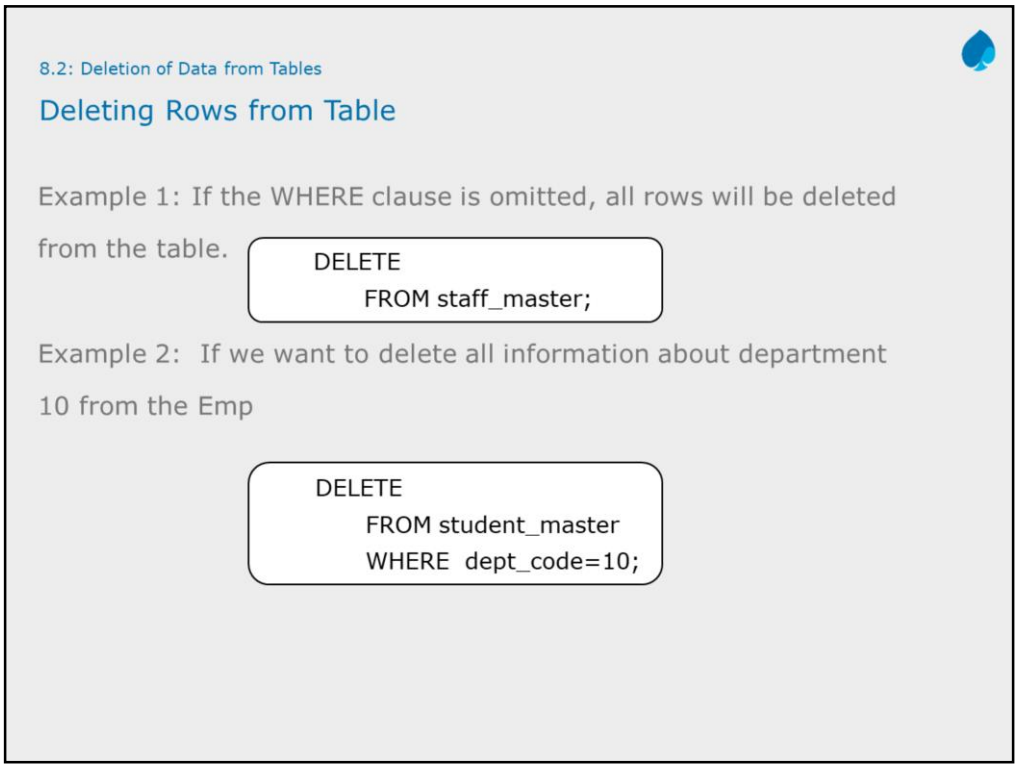
Instructor Notes:



Deletion of Data from Tables

- The table_name can be a “table” or a “view”.
- The DELETE command is used to delete one or more rows from a table.
- The DELETE statement removes all rows identified by the WHERE clause.
  - This is another DML, which means we can rollback the deleted data, and that to make our changes permanent.
- If WHERE clause is omitted, all rows from the table are removed. Else all rows which satisfy the condition are removed.
- FROM clause can be omitted without affecting the statement.

Instructor Notes:

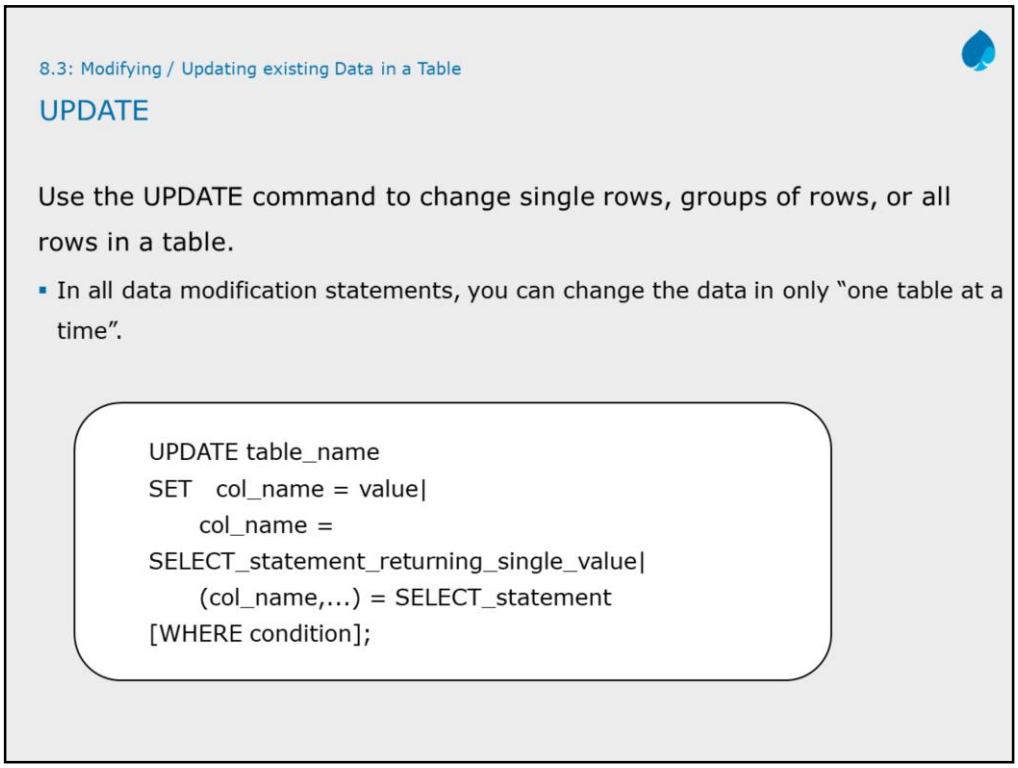


Deletion of Data from Tables

Example 3:

```
DELETE staff_master WHERE staff_name = 'Anil';
```

Instructor Notes:

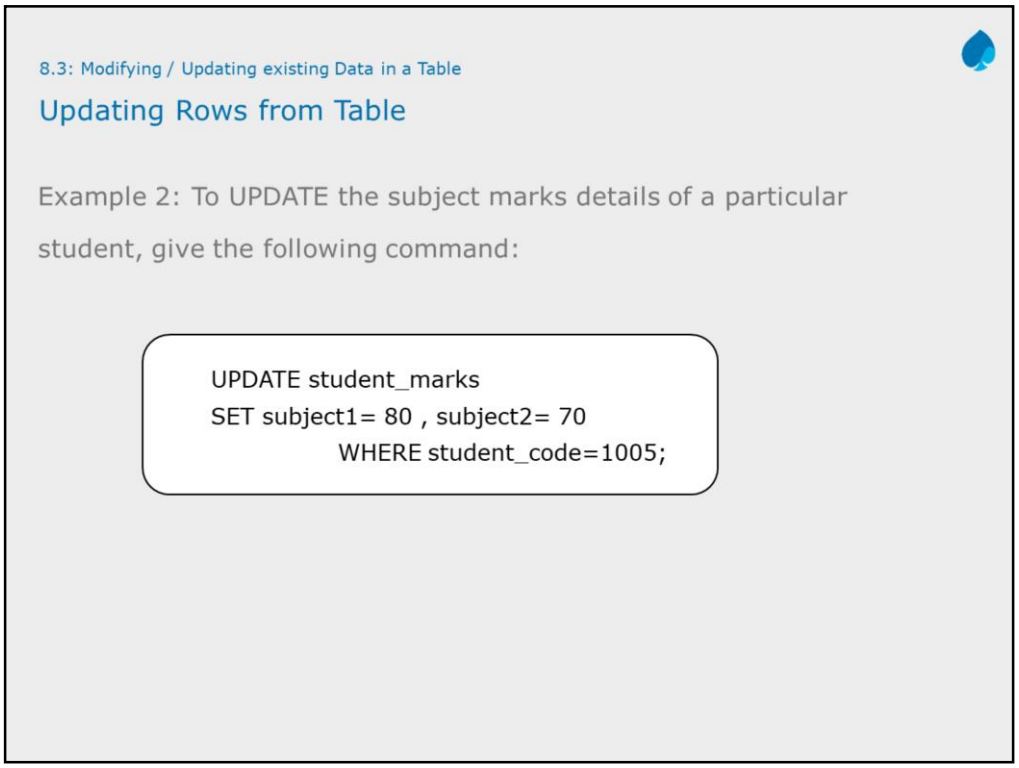


Modifying / Updating existing Data in a Table:

- The table_name can be a "table" or a "view".
- The "value" can be a value, an expression, or a query, which returns a single value.
- The UPDATE command provides automatic navigation to the data.
- **Note:** If the WHERE clause is omitted, all rows in the table will be updated by a value that is currently specified for the field. Else only those rows which satisfy the condition will be updated.

Instructor Notes:

Instructor Notes:



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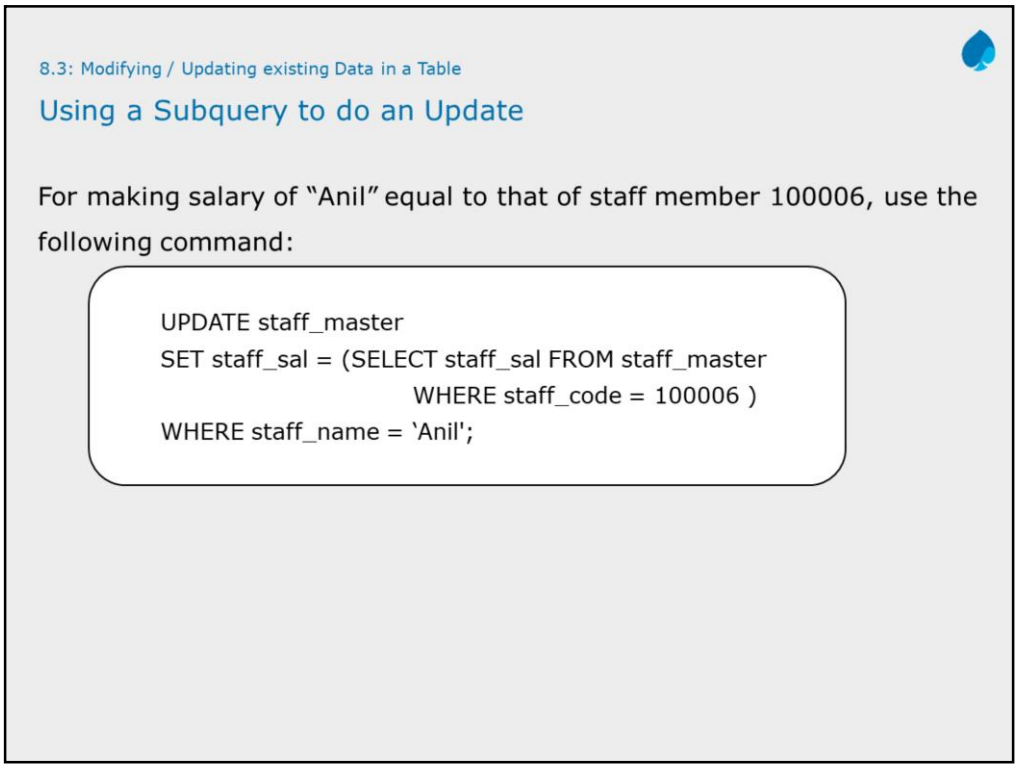

Instructor Notes:

Summary

In this lesson, you have learnt:

- The concept of Data Manipulation Language
- Inserting rows into a table
- Deleting rows from a table
- Updating rows in a table

Instructor Notes:

Answers to Review Questions

Question 1: True

Question 2: False

Question 3: Option 2

Review - Questions

Question 1: Both TRUNCATE statement and DELETE without condition removes the entire date from a table

- True/False

Question 2: All DML statements are auto committed

- True/False

Question 3: Inserting rows in a table emp1 from another table can be done using ___.

- Option 1: insert into emp1(t1) as select empno from emp
- Option 2: insert into emp1(t1) select empno from emp
- Option 3: insert into emp1(t1) as select * from emp