

Removing a Row from a Table

DEPARTMENTS

	DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID
1.	10	Administration	200	1700
2.	20	Marketing	201	1800
3.	50	Shipping	124	1500
4.	60	IT	103	1400
5.	80	Sales	149	2500
6.	90	Executive	100	1700
7.	110	Accounting	205	1700
8.	190	Contracting	(null)	1700

Delete a row from the DEPARTMENTS table:

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3.	50	Shipping	124	1500
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9.1

Removing a Row from a Table

The Contracting department has been removed from the DEPARTMENTS table (assuming no constraints on the DEPARTMENTS table are violated), as shown by the graphic in the slide.

DELETE Statement

•You can remove existing rows from a table by using the DELETE statement:

```
DELETE [FROM] table
[WHERE condition];
```

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DELETE Statement Syntax

You can remove existing rows from a table by using the DELETE statement.

In the syntax:

<i>table</i>	Is the name of the table
<i>condition</i>	Identifies the rows to be deleted, and is composed of column names, expressions, constants, subqueries, and comparison operators

Note: If no rows are deleted, the message “0 rows deleted” is returned (on the Script Output tab in SQL Developer)

For more information, see the section on “DELETE” in *Oracle Database SQL Language Reference* for 10g or 11g database.

Deleting Rows from a Table

- Specific rows are deleted if you specify the WHERE clause:

```
DELETE FROM runreport  
WHERE comments = 'Editing Report';
```

1 rows deleted

- All rows in the table are deleted if you omit the WHERE clause:

```
DELETE FROM copy_emp;
```

22 rows deleted

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Deleting Rows from a Table

You can delete specific rows by specifying the WHERE clause in the DELETE statement. The first example in the slide deletes the row from the RUNREPORT table where the comment is 'Editing Report'. You can confirm the delete operation by displaying the deleted rows using the SELECT statement.

```
SELECT *  
FROM runreport  
WHERE comments = 'Editing Report' ;
```

However, if you omit the WHERE clause, all rows in the table are deleted. The second example in the slide deletes all rows from the COPY_EMP table, because no WHERE clause was specified.

0 rows selected

remove rows identified in the WHERE clause.

```
DELETE FROM employees WHERE employee_id = 114;
```

```
DELETE FROM departments WHERE department_id IN (30,  
40);
```

1 rows deleted

2 rows deleted

Deleting Rows Based on Another Table

- Use the subqueries in the DELETE statements to remove rows from a table based on values from another table:

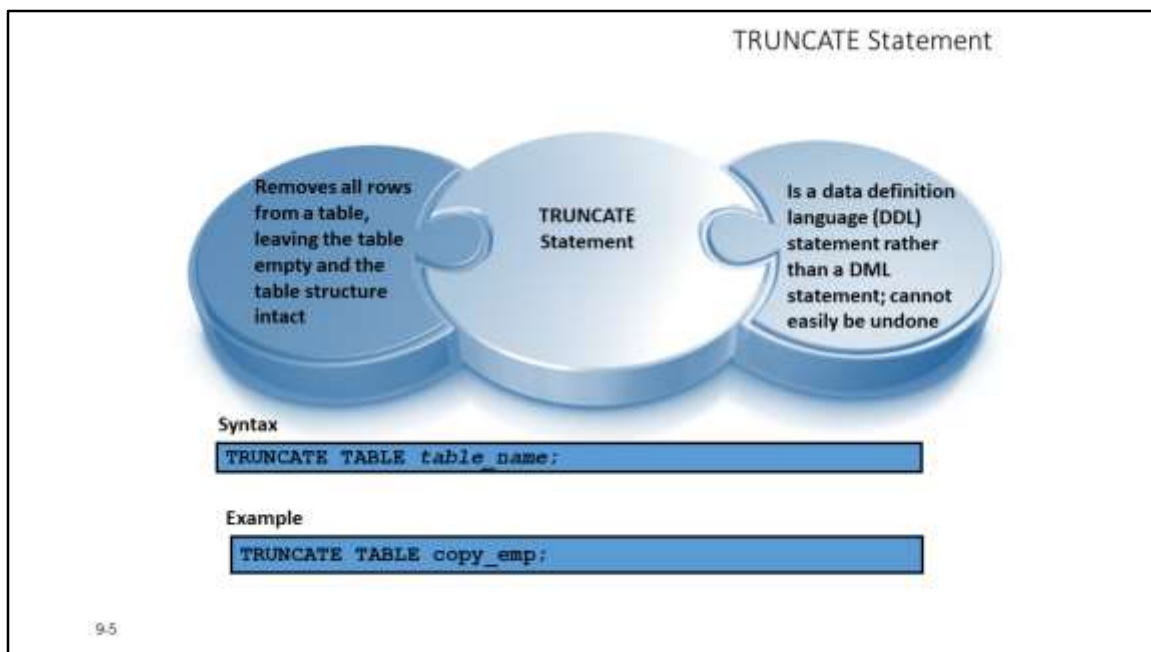
```
DELETE FROM employees
WHERE department_id =
    (SELECT department_id
     FROM departments
     WHERE department_name
     LIKE '%Public%');
```

1 rows deleted

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Deleting Rows Based on Another Table

You can use the subqueries to delete rows from a table based on values from another table. The example in the slide deletes all the employees in a department, where the department name contains the string `Public`. The subquery searches the `DEPARTMENTS` table to find the department number based on the department name containing the string `Public`. The subquery then feeds the department number to the main query, which deletes rows of data from the `EMPLOYEES` table based on this department number.



TRUNCATE Statement

A more efficient method of emptying a table is by using the `TRUNCATE` statement.

You can use the `TRUNCATE` statement to quickly remove all rows from a table or cluster. Removing rows with the `TRUNCATE` statement is faster than removing them with the `DELETE` statement for the following reasons:

The `TRUNCATE` statement is a data definition language (DDL) statement and generates no rollback information. Rollback information is covered later in this lesson.

Truncating a table does not fire the delete triggers of the table.

If the table is the parent of a referential integrity constraint, you cannot truncate the table. You need to disable the constraint before issuing the `TRUNCATE` statement. Disabling constraints is covered in the lesson titled “Using DDL Statements to Create and Manage Tables.”