

ALTER TABLE Statement

After you create a table, you may need to change the table structure for any of the following reasons:

- You omitted a column.

- Your column definition or its name needs to be changed.

- You need to remove columns.

- You want to put the table into the read-only mode

- You can do this by using the ALTER TABLE statement.

Read-Only Tables

Put a table into read-only mode, which prevents DDL or DML changes during table maintenance

Put the table back into read/write mode

```
ALTER TABLE orders READ ONLY;
```

- perform table maintenance and then
- return table back to read/write mode

```
ALTER TABLE orders READ WRITE;
```

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Read-Only Tables

With Oracle Database 11g, you can specify `READ ONLY` to place a table in the read-only mode. When the table is in the `READ-ONLY` mode, you cannot issue any DML statements that affect the table or any `SELECT . . . FOR UPDATE` statements. You can issue DDL statements as long as they do not modify any data in the table. Operations on indexes associated with the table are allowed when the table is in the `READ ONLY` mode.

Specify `READ/WRITE` to return a read-only table to the read/write mode.

Note: You can drop a table that is in the `READ ONLY` mode. The `DROP` command is executed only in the data dictionary, so access to the table contents is not required. The space used by the table will not be reclaimed until the tablespace is made read/write again, and then the required changes can be made to the block segment headers, and so on.

For information about the `ALTER TABLE` statement, see the course titled *Oracle Database: SQL Fundamentals II*.

Dropping a Table

Moves a table to the recycle bin

Removes the table and all its data entirely if the **PURGE** clause is specified

Invalidates dependent objects and removes object privileges on the table

```
DROP TABLE ord2458;
```

```
DROP TABLE dept80 succeeded.
```

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Dropping a Table

The **DROP TABLE** statement moves a table to the recycle bin or removes the table and all its data from the database entirely. Unless you specify the **PURGE** clause, the **DROP TABLE** statement does not result in space being released back to the tablespace for use by other objects, and the space continues to count towards the user's space quota. Dropping a table invalidates the dependent objects and removes object privileges on the table.

When you drop a table, the database loses all the data in the table and all the indexes associated with it.

Syntax

```
DROP TABLE table [PURGE]
```

In the syntax, *table* is the name of the table.

Guidelines

All the data is deleted from the table.

Any views and synonyms remain, but are invalid.

Any pending transactions are committed.

Only the creator of the table or a user with the **DROP ANY TABLE** privilege can remove a table.

Note: Use the **FLASHBACK TABLE** statement to restore a dropped table from

the recycle bin. This is discussed in detail in the course titled *Oracle Database: SQL Fundamentals II*.

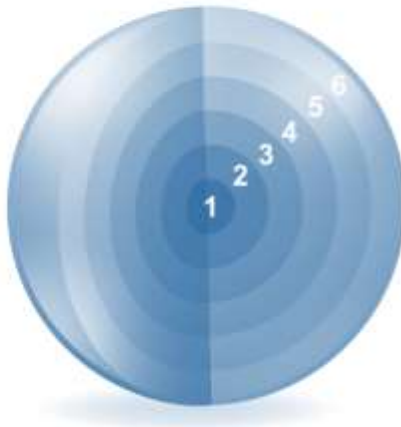
You can use constraints to do the following:

- 1.Enforce rules on the data in a table whenever a row is inserted, updated, or deleted.
- 2.Prevent the deletion of a table.
- 3.Prevent the creation of a table.
- 4.Prevent the creation of data in a table.

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Answer: 1, 2, 4

Session Summary



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1. Categorize the main database objects
2. Review the table structure
3. List the data types that are available for columns
4. Create a simple table
5. Explain how constraints are created at the time of table creation
6. Describe how schema objects work

Session Summary

In this lesson, you should have learned how to do the following:

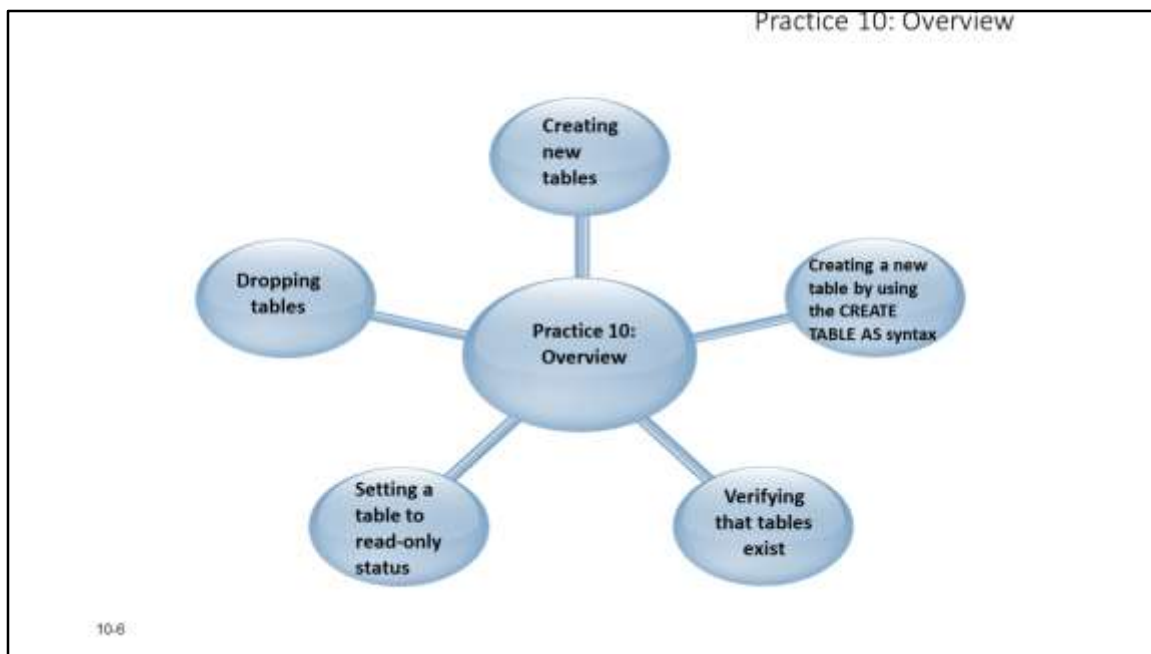
CREATE TABLE

Use the `CREATE TABLE` statement to create a table and include constraints.
Create a table based on another table by using a subquery.

DROP TABLE

Remove rows and a table structure.

When executed, this statement cannot be rolled back.



Practice 10: Overview

Create new tables by using the `CREATE TABLE` statement. Confirm that the new table was added to the database. You also learn to set the status of a table as `READ ONLY` and then revert to `READ/WRITE`.

Note: For all the DDL and DML statements, click the Run Script icon (or press [F5]) to execute the query in SQL Developer. This way you get to see the feedback messages on the Script Output tabbed page. For `SELECT` queries, continue to click the Execute Statement icon or press [F9] to get the formatted output on the Results tabbed page.