



Database System

Lecture 11

SQL Sub Languages

DDL - Data Definition Language

ALTER – RENAME –TRUNCATE- DROP

Prepared By

Dhafer Sabah Yaseen

SQL Components Or SQL Sub Languages

DCL: Data Control Language

Example: Grant, Revoke.

DDL: Data Definition Language.

Example: Create, Alter, Drop, Rename and Truncate.

DML: Data Manipulation Language

Example: Insert, Update, Delete

DRL: Data Retrieval Language

Example: Select

TCL: Transaction Control Language

Example : Rollback, Commit, Savepoint

DDL Commands

Suppose you have customer table as below details

Name	Null?	Type
-----	-----	-----
CUSTOMER_ID	NOT NULL	NUMBER(38)
LAST_NAME	NOT NULL	VARCHAR2(30)
FIRST_NAME		VARCHAR2(30)
C_EMAIL	NOT NULL	VARCHAR2(30)

```
CREATE TABLE customer  
(  
  CUSTOMER_ID    NUMBER(38)    NOT NULL,  
  LAST_NAME      VARCHAR2(30)  NOT NULL,  
  FIRST_NAME     VARCHAR2(30),  
  C_EMAIL        VARCHAR2(30)  NOT NULL  
);
```

DDL Commands - ALTER

DDL Commands:

ALTER:

Used to alter the structure of database object., it's used to Alter any object for example, User, Table , and etc.

DDL Commands - ALTER

DDL Commands:

ALTER:

We can use Alter (Table) for:

1. Adding new columns.
2. Modify an existing column(changing Data Type and size)
3. Drop a column
4. Add ,Drop ,Enable ,Disable a constraint. (Already done)

DDL Commands - ALTER

DDL Commands:

ALTER:

To add new columns:

The syntax:

ALTER TABLE <table_name>

ADD <col1_name> datatype(size)

ADD <col2_name> datatype(size).....;

DDL Commands - ALTER

DDL Commands:

ALTER:

Examples:

```
ALTER TABLE customer  
ADD customer_dis number(7);
```

```
ALTER TABLE customer  
ADD customer_phone varchar2(11)  
ADD customer_loc varchar2(10);
```

DDL Commands - ALTER

DDL Commands:

ALTER:

To increase or decrease column size:

The syntax:

```
ALTER TABLE <table_name>
```

```
MODIFY <existing_col> data_type(new_size);
```

Example:

```
ALTER TABLE Customer
```

```
MODIFY customer_dis number(5,2);
```


DDL Commands - ALTER

DDL Commands:

ALTER:

To change the existing data type:

The syntax:

```
ALTER TABLE <table_name>
```

```
MODIFY <existing col> <new_data_type>(size);
```

Example:

```
ALTER TABLE Customer
```

```
MODIFY customer_dis varchar2(20);
```

DDL Commands - ALTER

DDL Commands:

ALTER:

Important Note:

Column to be modified must be empty to change Data Type

DDL Commands - ALTER

DDL Commands:

ALTER: To Drop a column:

Used to remove columns from the table.(introduced in 8i)

The syntax:

```
ALTER TABLE <table_name>  
DROP column <col_name>;
```

```
ALTER TABLE <table_name>  
DROP(col1,col2,.....);
```

Example s:

```
ALTER TABLE customer  
DROP column customer_dis ;
```

```
ALTER TABLE customer  
DROP (CUSTOMER_PHONE , CUSTOMER_LOC);
```

DDL Commands - RENAME

DDL Commands:

RENAME

Used to change the name of an existing object.

Renaming Table

The Syntax:

```
RENAME <Old_Object_Name> TO  
<New_Object_Name>;
```

Example:

```
RENAME Customer TO Cust;
```

DDL Commands - TRUNCATE

DDL Commands:

TRUNCATE:

Used to remove all the records permanently from the table keeping the structure as it is.

The Syntax:

```
TRUNCATE TABLE <table_name>;
```

Example:

```
Truncate TABLE cust;
```

DDL Commands - DROP

DDL Commands:

DROP

It's used to drop database objects for example, User, Table and etc.

Dropping Table:

The Syntax:

DROP Object <Object_name>

DROP TABLE <table_name>

Example :

DROP TABLE Cust;





Thank you

Dhafar Sabah Yaseen