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FACULTY OF COMPUTING  
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# LAB EXERCISE 1 : DDL

SECD2523 – DATABASE

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**COURSE** : **2 SECJH**

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## Section 6 Lesson 3 Exercise : Data Definition Language

Use DDL to build and maintain database tables (S6L3 Objective 3)

### Part 1: Reading information from a script

In this exercise you will use the “obl Sports.ddl” file to consolidate your knowledge of DDL.

Open the “obl Sports.ddl” in a text editor.

1. How many tables have been created using the CREATE TABLE statement?

A: 10 tables

2. How many columns are created for the price history table?

A: 6 columns

3. What statement is used to enforce the constraint that the category column of the items table must have a value?

A: NOT NULL statement

4. What is the name of the foreign key constraint between the customers and customer addresses tables?

A: The foreign key is CUSTOMER\_ADDRESS\_CUSTOMER\_FK

5. What are the lowest and highest values that can be stored in the commission\_rate column for the sales\_representatives table?

A: Lowest Values: 0, Highest Values: 99

6. What are the lowest and highest values that can be stored in the price column for the price\_history table?

A: Lowest Values: 0, Highest Values: 99999999.99

7. What are the 3 columns that make up the primary key for the price\_history table?

A: ITM\_NUMBER, START\_DATE, START\_TIME

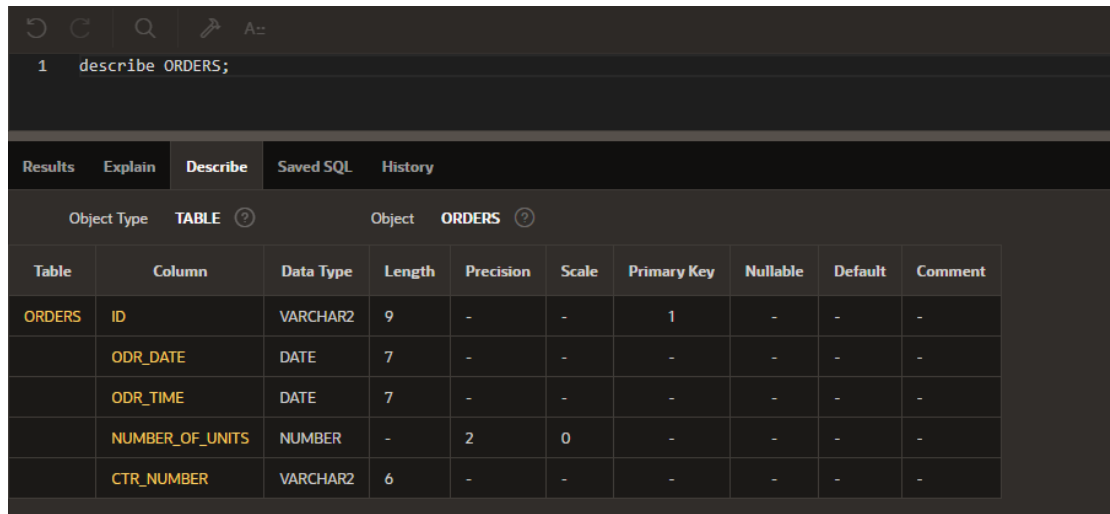
## Part 2 : Updating Constraints

Log-in to APEX and go to the SQL commands environment

### Modifying a column

1. Run the DESCRIBE command on the orders table to view its structure.
2. Task: Add a default constraint that will use today's date to assign a value to the odr\_date column of the orders table if no date is provided.
3. Run the DESCRIBE command again to verify the command was successful.

### 1. ANSWER:



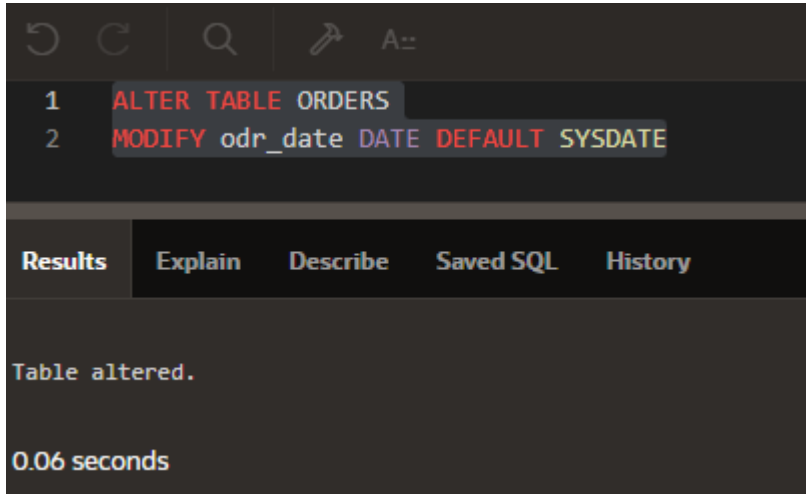
The screenshot shows the APEX SQL environment. The command `1 describe ORDERS;` has been entered. The results are displayed in a table format under the 'Describe' tab. The table structure for the **ORDERS** table is as follows:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERS	ID	VARCHAR2	9	-	-	1	-	-	-
	ODR_DATE	DATE	7	-	-	-	-	-	-
	ODR_TIME	DATE	7	-	-	-	-	-	-
	NUMBER_OF_UNITS	NUMBER	-	2	0	-	-	-	-
	CTR_NUMBER	VARCHAR2	6	-	-	-	-	-	-

## 2. ANSWER:

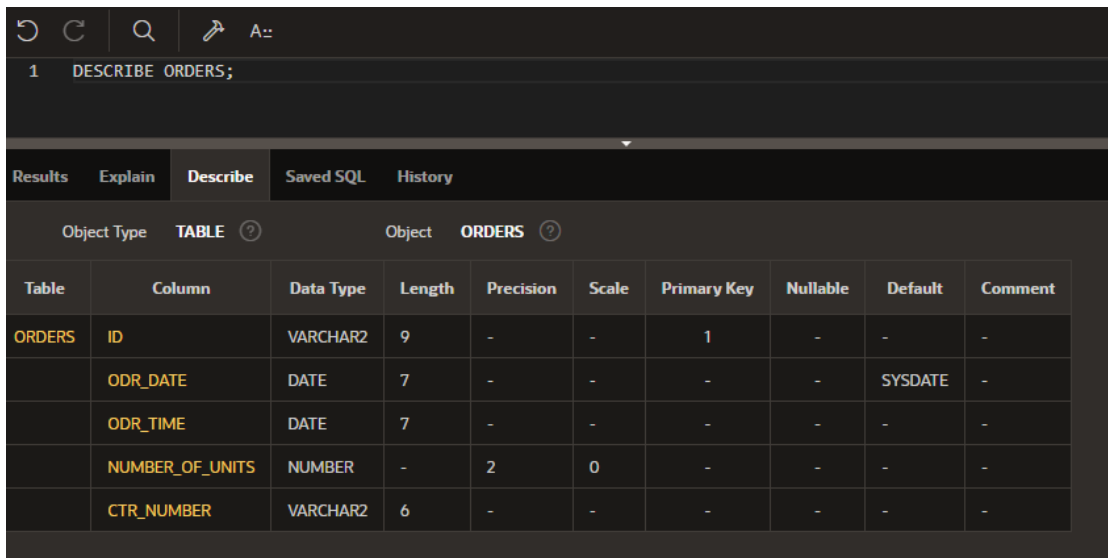
ALTER TABLE ORDERS

MODIFY odr\_date DATE DEFAULT SYSDATE



The screenshot shows a SQL execution interface with a dark theme. At the top, there is a toolbar with icons for undo, redo, search, and a prompt icon. Below the toolbar, the SQL statement is entered in two lines: `1 ALTER TABLE ORDERS` and `2 MODIFY odr_date DATE DEFAULT SYSDATE`. The statement is highlighted with a light blue background. Below the statement, there are tabs for **Results**, **Explain**, **Describe**, **Saved SQL**, and **History**. The **Results** tab is selected, showing the message `Table altered.` and the execution time `0.06 seconds`.

## 3. ANSWER:



The screenshot shows a SQL execution interface with a dark theme. At the top, there is a toolbar with icons for undo, redo, search, and a prompt icon. Below the toolbar, the SQL statement `1 DESCRIBE ORDERS;` is entered. Below the statement, there are tabs for **Results**, **Explain**, **Describe**, **Saved SQL**, and **History**. The **Describe** tab is selected, showing the table structure for **ORDERS**. The table structure is displayed as a table with columns: Table, Column, Data Type, Length, Precision, Scale, Primary Key, Nullable, Default, and Comment.

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERS	ID	VARCHAR2	9	-	-	1	-	-	-
	ODR_DATE	DATE	7	-	-	-	-	SYSDATE	-
	ODR_TIME	DATE	7	-	-	-	-	-	-
	NUMBER_OF_UNITS	NUMBER	-	2	0	-	-	-	-
	CTR_NUMBER	VARCHAR2	6	-	-	-	-	-	-