FACULTY OF COMPUTING
UTM Johor Bahru

SECD2523 – 08 Database

Semester I , Session 2023/2024

Lab 1 – DDL

Lecturer:

Dr. Noor Hidayah Zakaria

Name	Matrics Number
Teoh Zhi Yong	A22EC0125

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?
   10 tables have been created using the CREATE TABLE statement.

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

3. What statement is used to enforce the constraint that the category column of the items table must have a value?
   'NOT NULL' statement is used to enforce the constraint that the category column of the items table must have a value.

4. What is the name of the foreign key constraint between the customers and customer addresses tables?
   The foreign key constraint between the customers and customer address tables 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?
   Lowest value: -99
   Highest value: 99

6. What are the lowest and highest values that can be stored in the price column for the price_history table?
   Lowest value: -99999.99
   Highest value: 99999.99

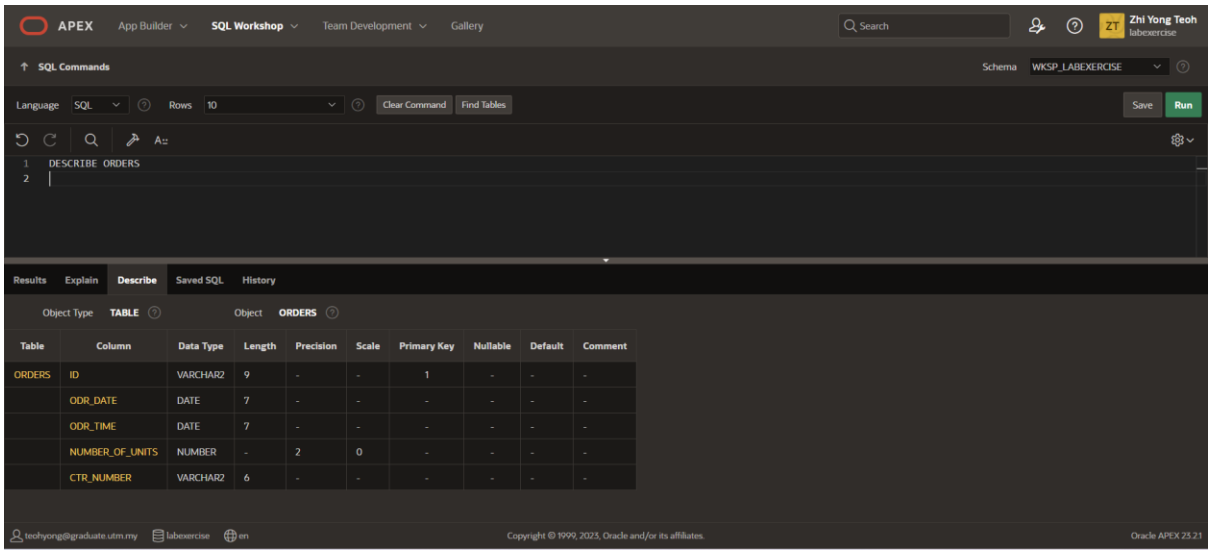
7. What are the 3 columns that make up the primary key for the price_history table?
   The 3 columns that make up the primary key for the price_history table are itm_number, start_date, start_time

Part 2 : Updating Constraints

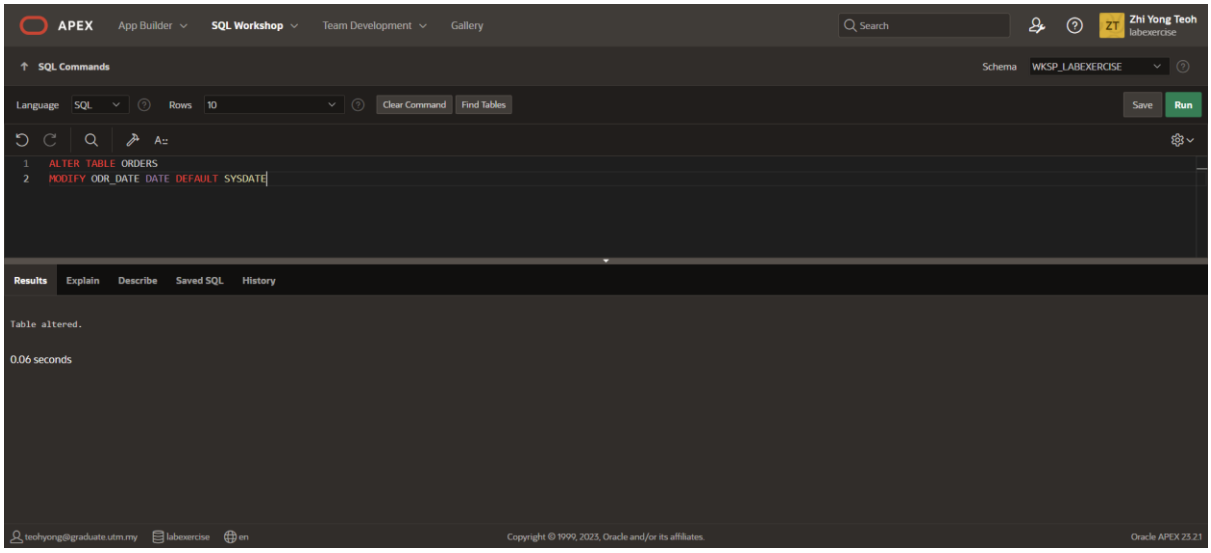
Log-in to APEX and go to the SQL commands environment

Modifying a column

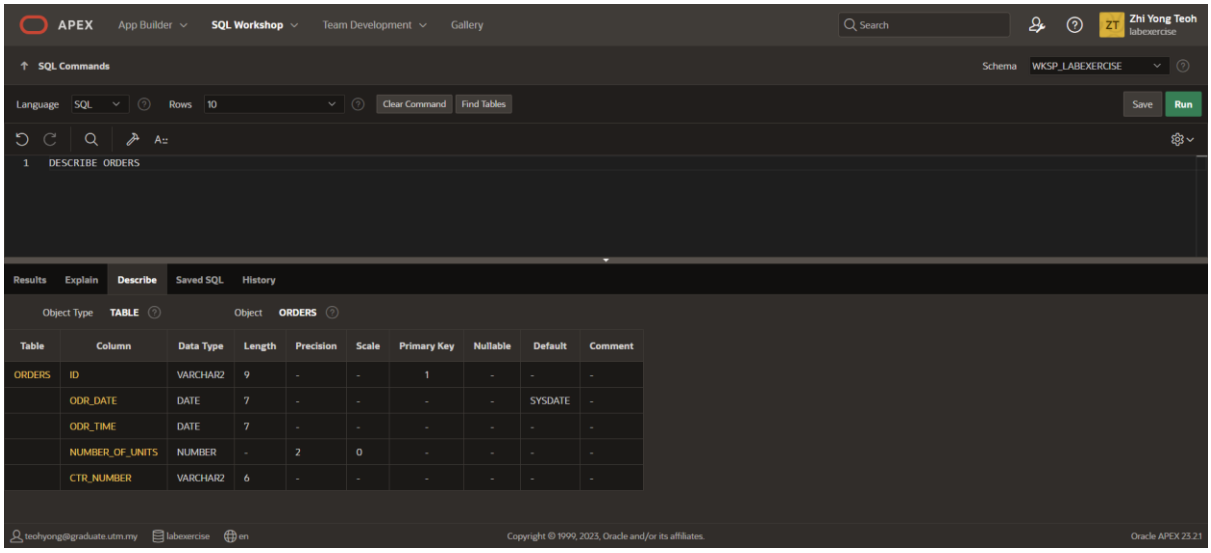
1. Run the DESCRIBE command on the orders table to view its structure.



2. Task: Add a default constraint that will use todays date to assign a value to the odr_date column of the orders table if no date is provided.

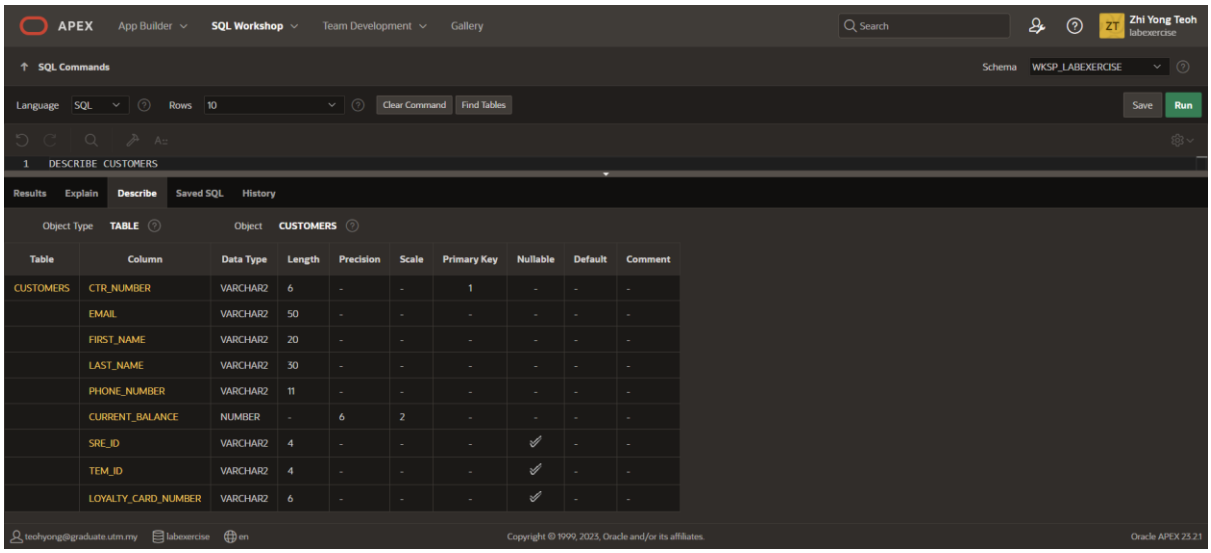


3. Run the DESCRIBE command again to verify the command was successful.

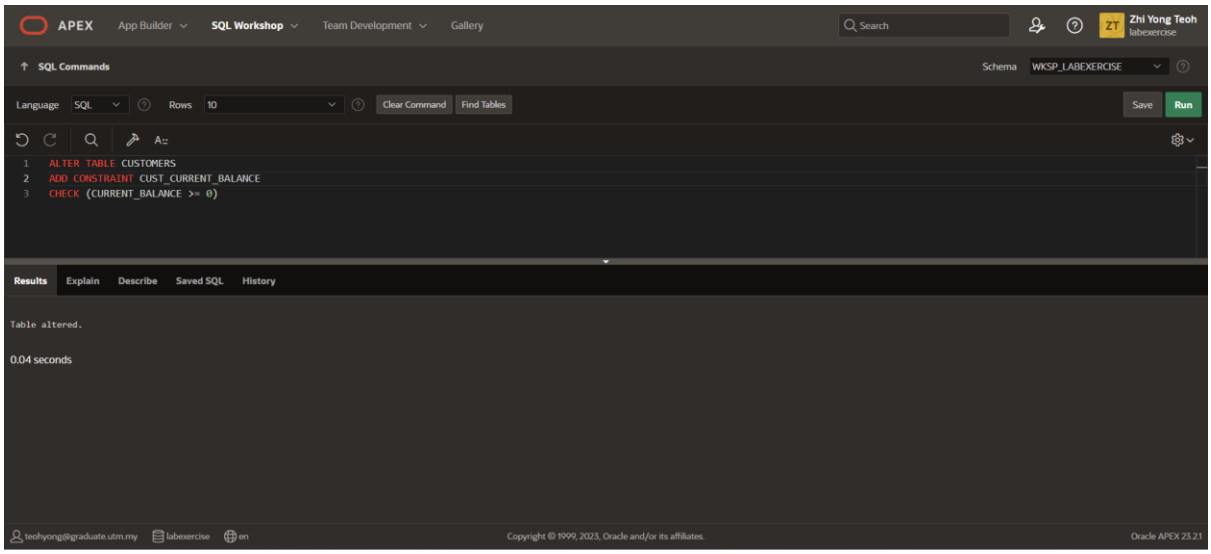


Adding a check constraint

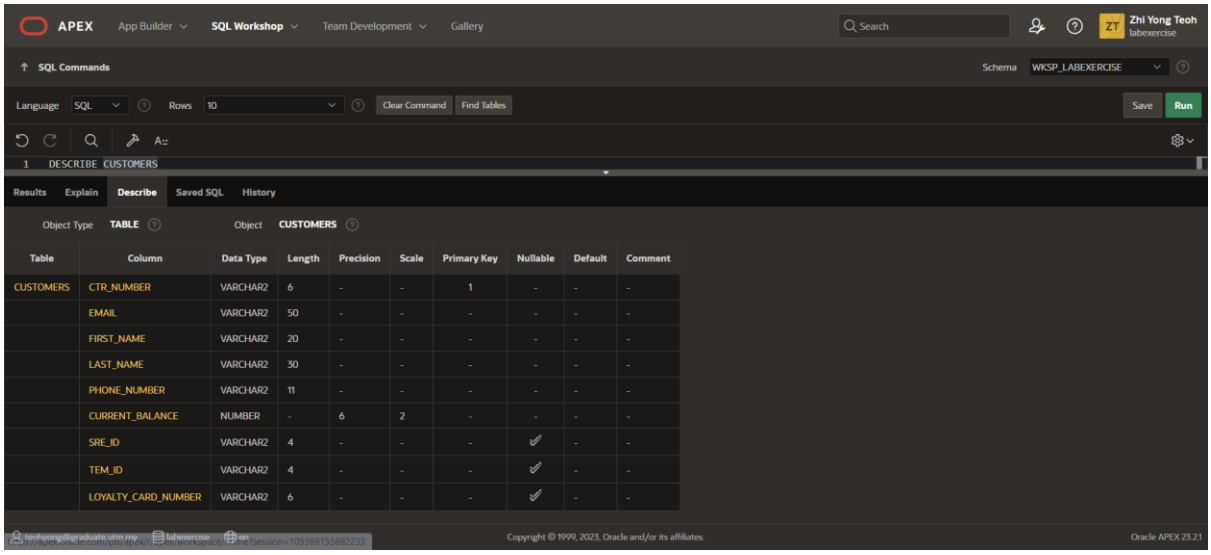
1. Run the DESCRIBE command on the customers table to view its structure.



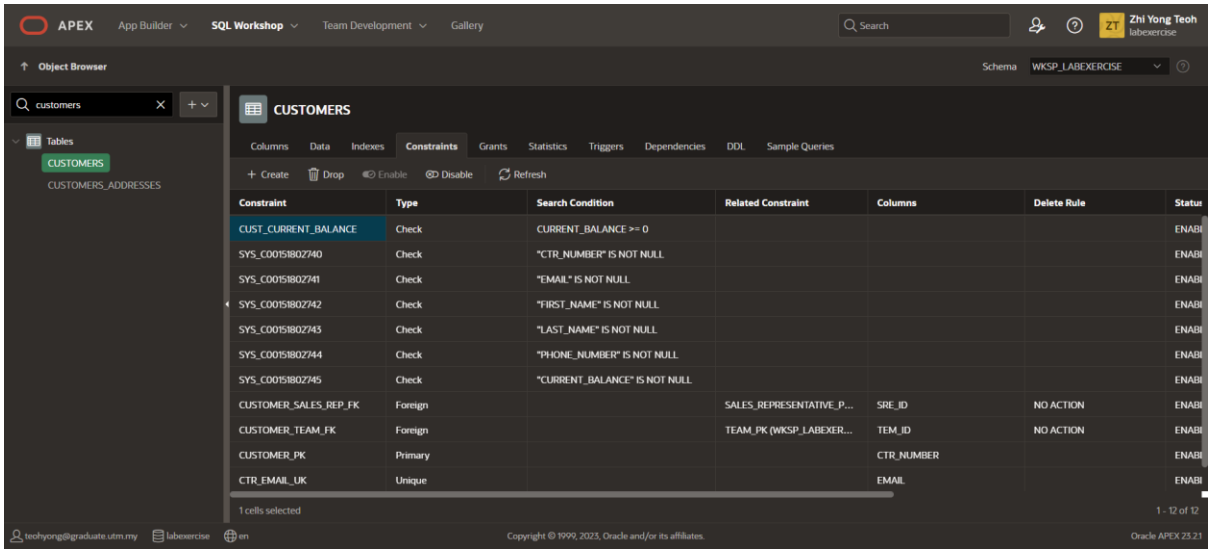
2. Task: Add a check constraint that will not allow the customers current balance to go below zero.



3. Run the DESCRIBE command again to verify the command was successful.



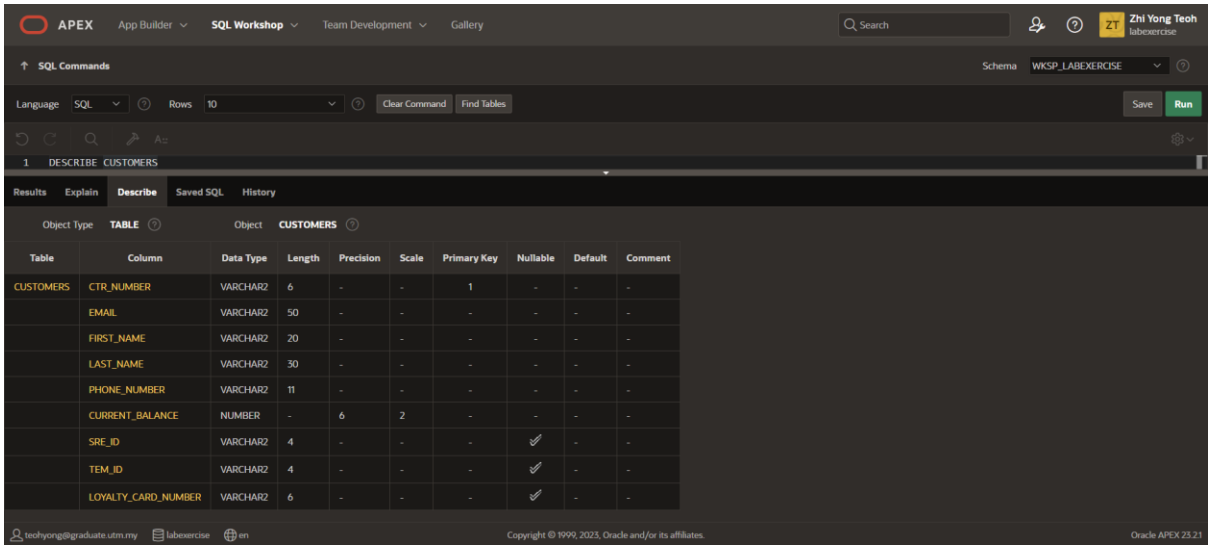
4. A check constraint is not shown in the results of a describe command.
   a. Go to the Object Browser
   b. Select the customers table.
   c. Click on the CONSTRAINTS tab.
   d. You will see your constraint here.



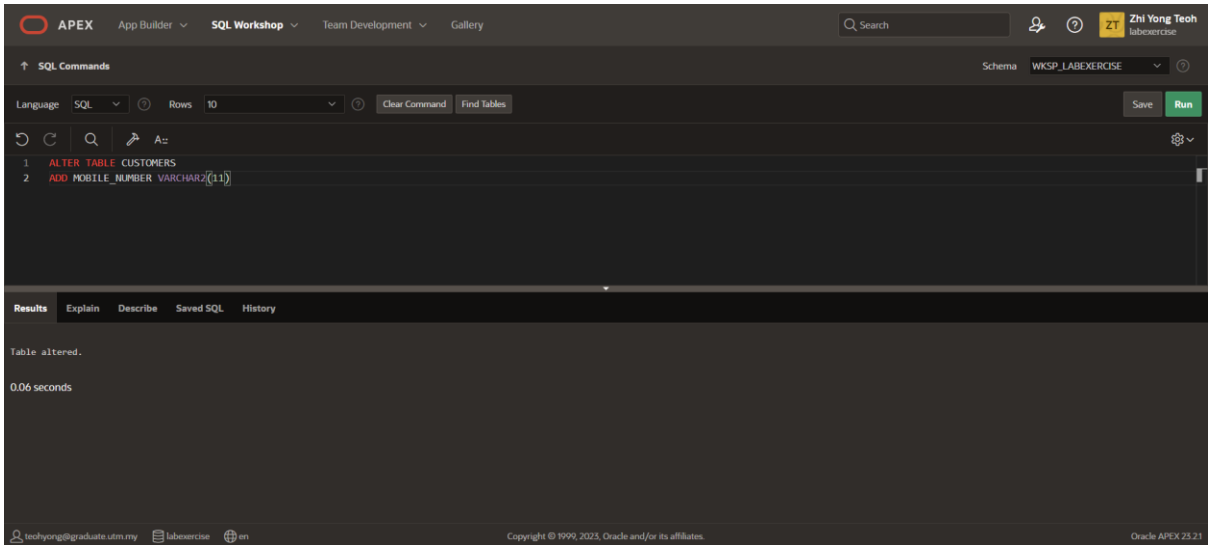
Adding a column

The client has decided that they would like a separate column for the customer's mobile phone number. This is an optional column that will be required to store 11 digits.

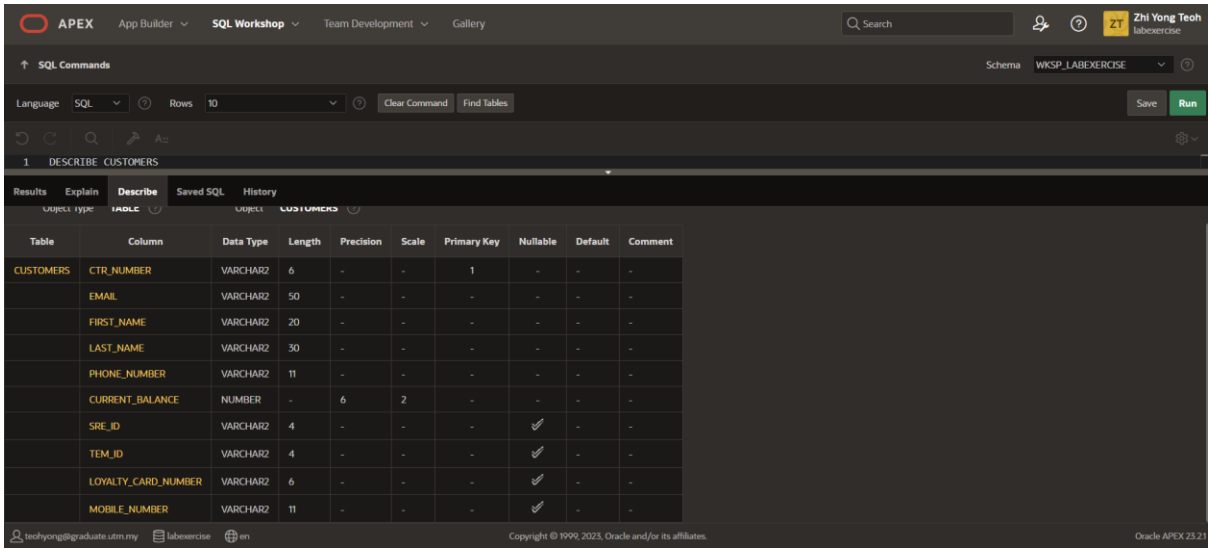
1. Run the DESCRIBE command on the customers table to view its structure.



2. Task: Add column that will satisfy the clients requirements



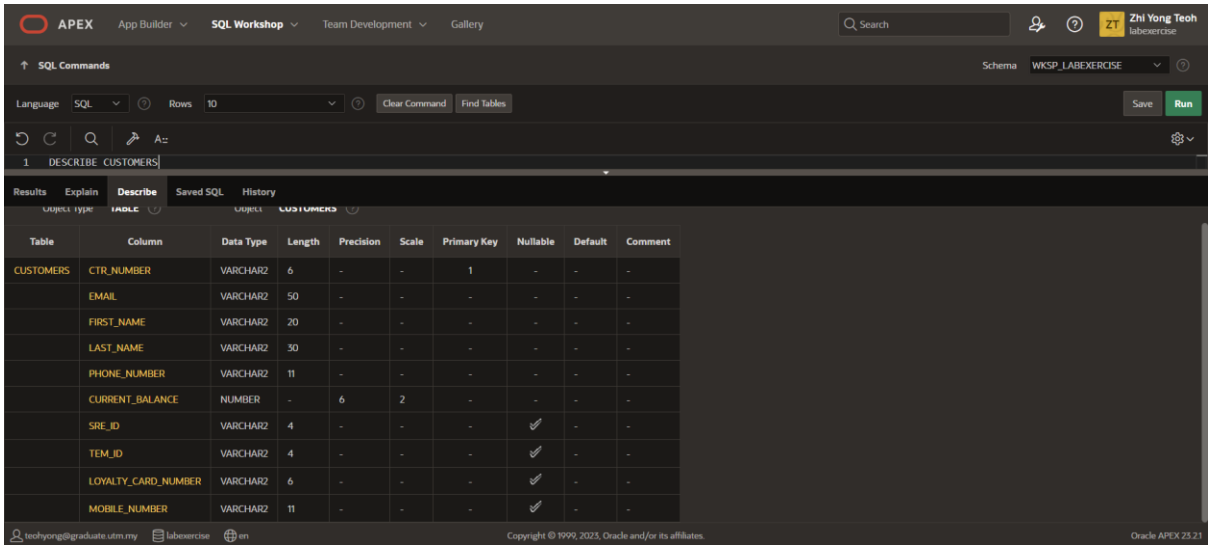
3. Run the DESCRIBE command on the customers table to view its structure.



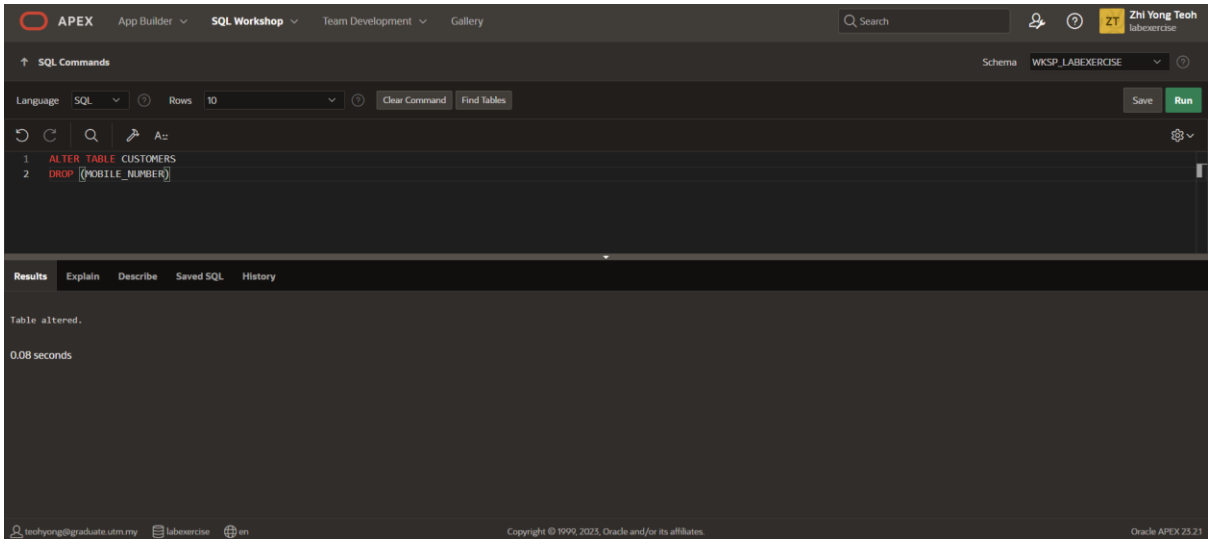
Dropping a column

The client has decided that they don't need the mobile number column as most customers only provide a single contact number and that is already catered for with the existing phone_number column.

1. Run the DESCRIBE command on the customers table to view its structure.



2. Task: Drop the column that was created to store the mobile phone number.



3. Run the DESCRIBE command on the customers table to view its structure