Lim SI NI A22ECU070 LAB 1

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
2. How many columns are created for the price history table? 6
3. What statement is used to enforce the constraint that the category column of the items table must have a value? category VARCHAR(25) NOT NULL
4. What is the name of the foreign key constraint between the customers and customer addresses tables? 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? highest value: 99
   lowest value: -99
6. What are the lowest and highest values that can be stored in the price column for the price_history table? highest value: 9999999.99
   lowest value: -9999999.99
7. What are the 3 columns that make up the primary key for the price_history table?
   item_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.

PART 2

1. Modify column

```
DESCRIBE orders;
ALTER TABLE orders
MODIFY odr_date DATE DEFAULT SYSDATE;
DESCRIBE orders;
```

2. Add constraint

```
DESCRIBE customers;
ALTER TABLE customers
ADD CONSTRAINT check_positive
CHECK (current_balance >= 0);
DESCRIBE customers;
```

3. Add column

```
DESCRIBE customers;
ALTER TABLE customers
ADD phone_number VARCHAR2(11);
DESCRIBE customers;
```

4. Drop Column

```
DESCRIBE customers;
ALTER TABLE customers
DROP COLUMN phone_number;
DESCRIBE customers;
```