



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

**SECD2523 - SECTION 03**  
**DATABASE**  
**SEMESTER I (2023/2024)**

**ASSIGNMENT 1:**  
Lab Exercise 1

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### **Section 3 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.

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?

- REFERENCES

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

- ctr\_number

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

- lowest = -99, highest = 99

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

- lowest = -9999999.99 , highest = 9999999.99

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

- ITM\_NUMBER, START\_DATE, START\_TIME

## Part 2 : Updating Constraints

### Modifying a column

1. DESCRIBE ORDERS
2. ALTER TABLE ORDERS
3. MODIFY odr\_date DATE DEFAULT SYSDATE
4. DESCRIBE orders

TABLE ORDERS		
Column	Null?	Type
ID	NOT NULL	VARCHAR2(9)
ODR_DATE	NOT NULL	DATE
ODR_TIME	NOT NULL	DATE
NUMBER_OF_UNITS	NOT NULL	NUMBER(2,0)
CTR_NUMBER	NOT NULL	VARCHAR2(6)

### Adding a check constraint

1. DESCRIBE CUSTOMERS
2. ALTER TABLE CUSTOMERS
3. ADD CONSTRAINT current\_balance CHECK (current\_balance >= 0)
4. DESCRIBE CUSTOMERS

Constraint	Type	Condition	Related Constraint
CURRENT_BALANCE	Check	CURRENT_BALANCE > = 0	-

## Adding a column

1. DESCRIBE CUSTOMERS
2. ALTER TABLE CUSTOMERS
3. ADD mobile\_number VARCHAR (11)
4. DESCRIBE CUSTOMERS

TABLE CUSTOMERS		
Column	Null?	Type
CTR_NUMBER	NOT NULL	VARCHAR2(6)
EMAIL	NOT NULL	VARCHAR2(50)
FIRST_NAME	NOT NULL	VARCHAR2(20)
LAST_NAME	NOT NULL	VARCHAR2(30)
PHONE_NUMBER	NOT NULL	VARCHAR2(11)
CURRENT_BALANCE	NOT NULL	NUMBER(6,2)
SRE_ID	-	VARCHAR2(4)
TEM_ID	-	VARCHAR2(4)
LOYALTY_CARD_NUMBER	-	VARCHAR2(6)
MOBILE_NUMBER	-	VARCHAR2(11)

## Dropping a column

1. DESCRIBE CUSTOMERS
2. ALTER TABLE CUSTOMERS
3. DROP COLUMN mobile\_number
4. DESCRIBE CUSTOMERS

TABLE CUSTOMERS		
Column	Null?	Type
CTR_NUMBER	NOT NULL	VARCHAR2(6)
EMAIL	NOT NULL	VARCHAR2(50)
FIRST_NAME	NOT NULL	VARCHAR2(20)
LAST_NAME	NOT NULL	VARCHAR2(30)
PHONE_NUMBER	NOT NULL	VARCHAR2(11)
CURRENT_BALANCE	NOT NULL	NUMBER(6,2)
SRE_ID	-	VARCHAR2(4)
TEM_ID	-	VARCHAR2(4)
LOYALTY_CARD_NUMBER	-	VARCHAR2(6)

5.