

LAB 1 DDL

Name	Loh Chee Huan
Matric Number	A22EC0186
Course Code	SECD2523
Course Name	Database
Section	08

Section 6 Lesson 3 Exercise : Data Definition Language

- 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.
- How many tables have been created using the CREATE TABLE statement?
 tables
- 2. How many columns are created for the price history table?6 columns
- 3. What statement is used to enforce the constraint that the category column of the items table must have a value?

"NOT NULL" statement

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?

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 : -99999.99 Highest : 99999.99

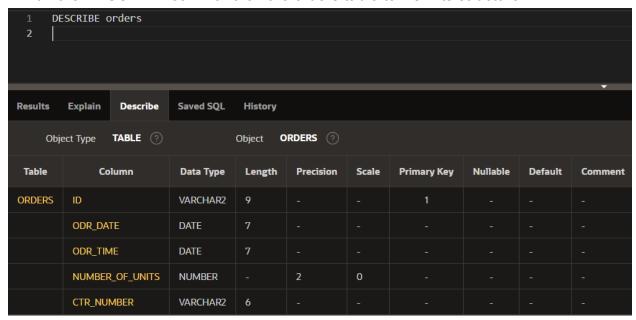
7. What are the 3 columns that make up the primary key for the price_history table? Itm_number, start_date, start_time

Part 2 : Updating Constraints

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

Modifying a column

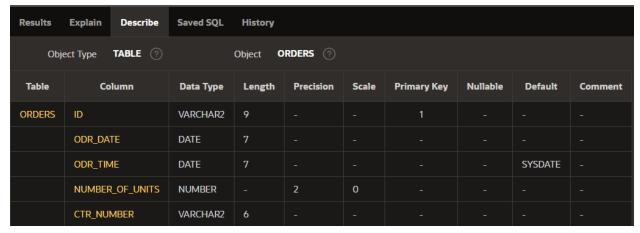
1. Run the DESCRIBE command on the orders table to view its structure.



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.

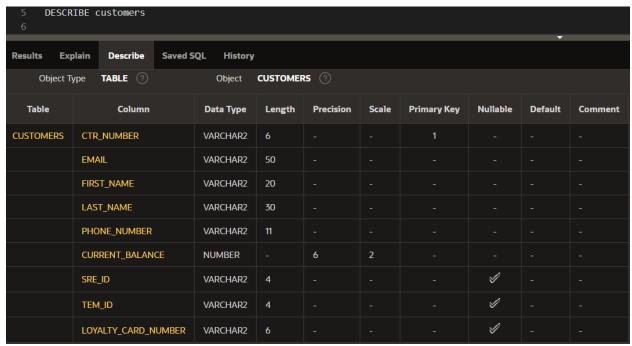
ALTER TABLE orders MODIFY ODR_TIME DATE DEFAULT SYSDATE;

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.

```
ALTER TABLE customers ADD CONSTRAINT min_current_balance CHECK (current_balance >= 0 )
```

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

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6			1			-
	EMAIL	VARCHAR2	50						-
	FIRST_NAME	VARCHAR2	20						-
	LAST_NAME	VARCHAR2	30						-
	PHONE_NUMBER	VARCHAR2	11						-
	CURRENT_BALANCE	NUMBER		6	2				-
	SRE_ID	VARCHAR2	4				 ✓		-
	TEM_ID	VARCHAR2	4				\$		-
	LOYALTY_CARD_NUMBER	VARCHAR2	6				 ✓		-

- 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.

MIN_CURRENT_BALANCE	Check	current_balance >= 0			
SYS_C00151705342	Check	"CTR_NUMBER" IS NOT NULL			
SYS_C00151705343	Check	"EMAIL" IS NOT NULL			
SYS_C00151705344	Check	"FIRST_NAME" IS NOT NULL			
SYS_C00151705345	Check	"LAST_NAME" IS NOT NULL			
SYS_C00151705346	Check	"PHONE_NUMBER" IS NOT NULL			
SYS_C00151705347	Check	"CURRENT_BALANCE" IS NOT NULL			
CUSTOMER_SALES_REP_FK	Foreign		SALES_REPRESENTATIVE_PK	SRE_ID	NO ACTION
CUSTOMER_TEAM_FK	Foreign		TEAM_PK (WKSP_JACKY0716	TEM_ID	NO ACTION
CUSTOMER_PK	Primary			CTR_NUMBER	
CTR_EMAIL_UK	Unique			EMAIL	
CTR_LCN_UK	Unique			LOYALTY_CARD_NUMBER	

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.

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6			1			-
	EMAIL	VARCHAR2	50						-
	FIRST_NAME	VARCHAR2	20						-
	LAST_NAME	VARCHAR2	30						-
	PHONE_NUMBER	VARCHAR2	11						-
	CURRENT_BALANCE	NUMBER		6	2				-
	SRE_ID	VARCHAR2	4				S		-
	TEM_ID	VARCHAR2	4				S		-
	LOYALTY_CARD_NUMBER	VARCHAR2	6	-	-	-	S	-	-

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

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

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6			1			
	EMAIL	VARCHAR2	50						
	FIRST_NAME	VARCHAR2	20						
	LAST_NAME	VARCHAR2	30						
	PHONE_NUMBER	VARCHAR2	11						
	CURRENT_BALANCE	NUMBER		6	2				
	SRE_ID	VARCHAR2	4				 √		
	TEM_ID	VARCHAR2	4				 ✓		
	LOYALTY_CARD_NUMBER	VARCHAR2	6				s/		
	CUST_PHONE_NUM	VARCHAR2	11				s/		

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.

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6			1			
	EMAIL	VARCHAR2	50						
	FIRST_NAME	VARCHAR2	20						
	LAST_NAME	VARCHAR2	30						
	PHONE_NUMBER	VARCHAR2	11						
	CURRENT_BALANCE	NUMBER		6	2				
	SRE_ID	VARCHAR2	4						
	TEM_ID	VARCHAR2	4				 ✓		
	LOYALTY_CARD_NUMBER	VARCHAR2	6				s/		
	CUST_PHONE_NUM	VARCHAR2	11				\$		

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

ALTER TABLE customers DROP (cust_phone_num)

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

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMERS	CTR_NUMBER	VARCHAR2	6			1			-
	EMAIL	VARCHAR2	50						-
	FIRST_NAME	VARCHAR2	20						-
	LAST_NAME	VARCHAR2	30						-
	PHONE_NUMBER	VARCHAR2	11						-
	CURRENT_BALANCE	NUMBER		6	2				-
	SRE_ID	VARCHAR2	4				S/		-
	TEM_ID	VARCHAR2	4				S		-
	LOYALTY_CARD_NUMBER	VARCHAR2	6	-	-	-	S/	-	-