

Section 10 : SQL1 Lab Exercise 1

Part 1: Reading Information from a script

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

Answer: 10 tables

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

Answer: 6 column

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

Answer: NOT NULL

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

Answer: ctr_number

5. What are the lowest and highest values that can be stored in the commission_rate column for the sales_representatives table?

Answer: Lowest number = 0, highest number = 99

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

Answer: Lowest number = 0.00, highest number = 9999999.99

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

Answer: itm_number , start_date, start_time

Part 2 : Updating Constraints

Modifying a column

1.

The screenshot shows the SQL Developer interface. The 'SQL Commands' window contains the command `DESC orders;`. Below the command window, the 'Describe' tab is selected, showing the structure of the 'ORDERS' table.

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERS	ID	VARCHAR2	9	-	-	1	-	-	-
	ODR_DATE	DATE	7	-	-	-	-	-	-

2.

The screenshot shows the SQL Developer interface. The 'SQL Commands' window contains the command `ALTER TABLE orders MODIFY odr_date DATE DEFAULT SYSDATE ;`.

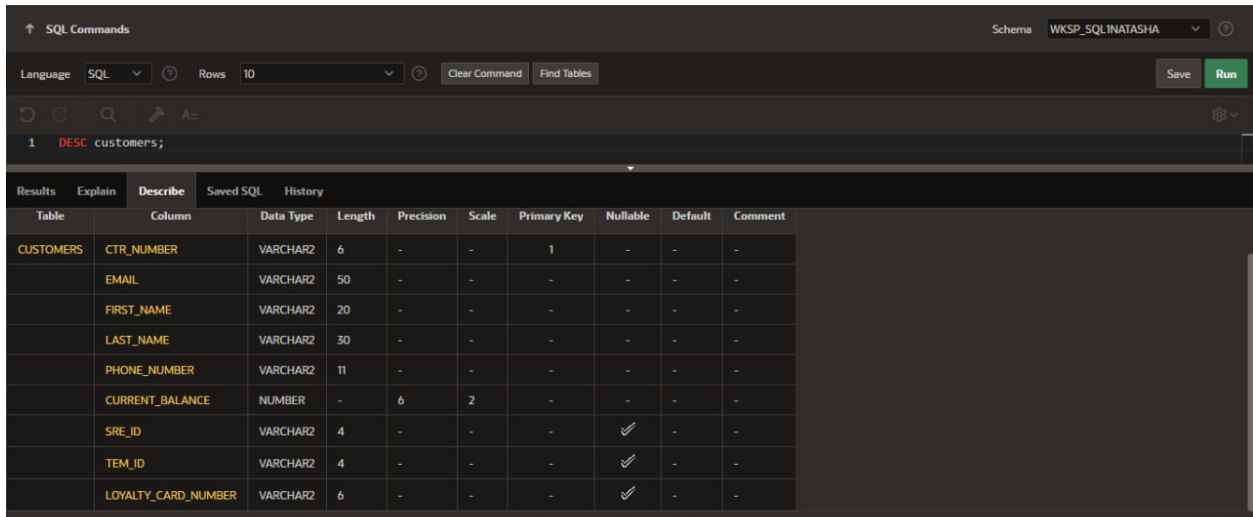
3.

The screenshot shows the SQL Developer interface. The 'SQL Commands' window contains the command `ALTER TABLE orders MODIFY odr_date DATE DEFAULT SYSDATE ;`. Below the command window, the 'Describe' tab is selected, showing the structure of the 'ORDERS' table.

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	-	-	-	-	-	-

Adding a check constraint

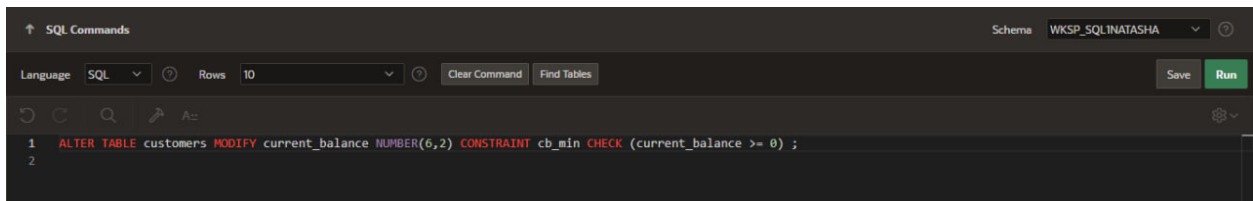
1.



The screenshot shows the SQL Developer interface with the command `DESC customers;` entered in the SQL Commands window. The results pane displays the table structure for the `CUSTOMERS` table.

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	-	-	-	✓	-	-

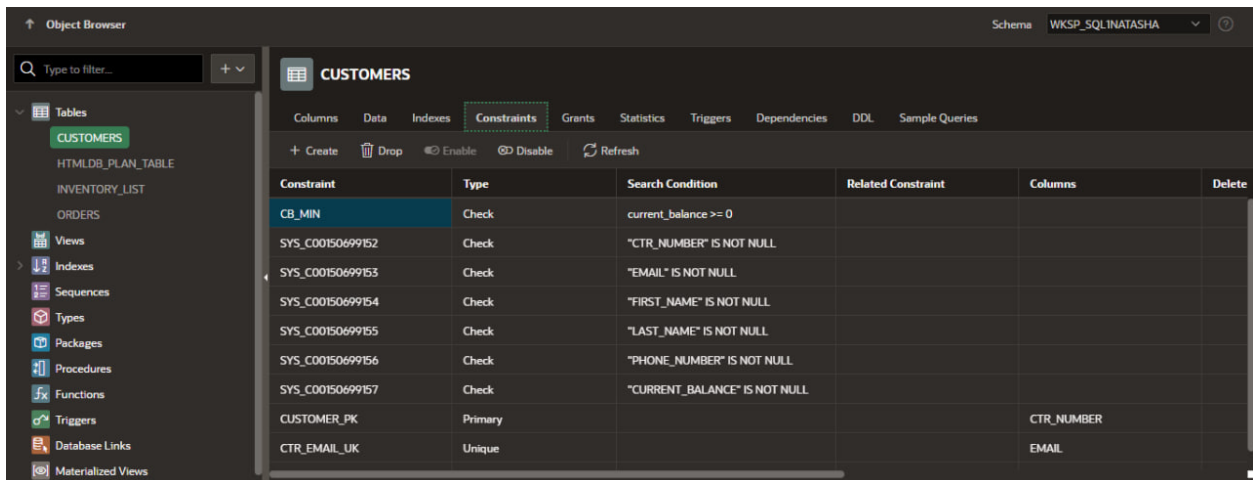
2.



The screenshot shows the SQL Developer interface with the following SQL command entered in the SQL Commands window:

```
1 ALTER TABLE customers MODIFY current_balance NUMBER(6,2) CONSTRAINT cb_min CHECK (current_balance >= 0);
2
```

3.



The screenshot shows the SQL Developer interface with the `CUSTOMERS` table selected in the Object Browser. The `Constraints` tab is active, displaying a list of constraints.

Constraint	Type	Search Condition	Related Constraint	Columns	Delete
CB_MIN	Check	current_balance >= 0			
SYS_C00150699152	Check	"CTR_NUMBER" IS NOT NULL			
SYS_C00150699153	Check	"EMAIL" IS NOT NULL			
SYS_C00150699154	Check	"FIRST_NAME" IS NOT NULL			
SYS_C00150699155	Check	"LAST_NAME" IS NOT NULL			
SYS_C00150699156	Check	"PHONE_NUMBER" IS NOT NULL			
SYS_C00150699157	Check	"CURRENT_BALANCE" IS NOT NULL			
CUSTOMER_PK	Primary			CTR_NUMBER	
CTR_EMAIL_UK	Unique			EMAIL	

Adding a column

1.

SQL Commands

Schema: WKSP_SQLINATASHA

Language: SQL Rows: 10 Clear Command Find Tables Save Run

1 DESC customers;

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	-	-	-	✓	-	-

2.

SQL Commands

Schema: WKSP_SQLINATASHA

Language: SQL Rows: 10 Clear Command Find Tables Save Run

1 ALTER TABLE customers ADD mobile_phone_number VARCHAR2(11);

3.

SQL Commands

Schema: WKSP_SQLINATASHA

Language: SQL Rows: 10 Clear Command Find Tables Save Run

1 DESC customers;

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	-	-	-	✓	-	-
	MOBILE_PHONE_NUMBER	VARCHAR2	11	-	-	-	✓	-	-

Dropping a column

1.

SQL Commands

Schema: WKSP_SQLINATASHA

Language: SQL Rows: 10 Clear Command Find Tables Save Run

1 DESC customers;

Results Explain Describe Saved SQL History

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	-	-	-	✓	-	-
	MOBILE_PHONE_NUMBER	VARCHAR2	11	-	-	-	✓	-	-

2.

SQL Commands

Schema: WKSP_SQLINATASHA

Language: SQL Rows: 10 Clear Command Find Tables Save Run

1 ALTER TABLE customers DROP (mobile_phone_number);

3.

SQL Commands

Schema: WKSP_SQLINATASHA

Language: SQL Rows: 10 Clear Command Find Tables Save Run

1 DESC customers;

Results Explain Describe Saved SQL History

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	-	-	-	✓	-	-

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