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DATABASE SECTION 10

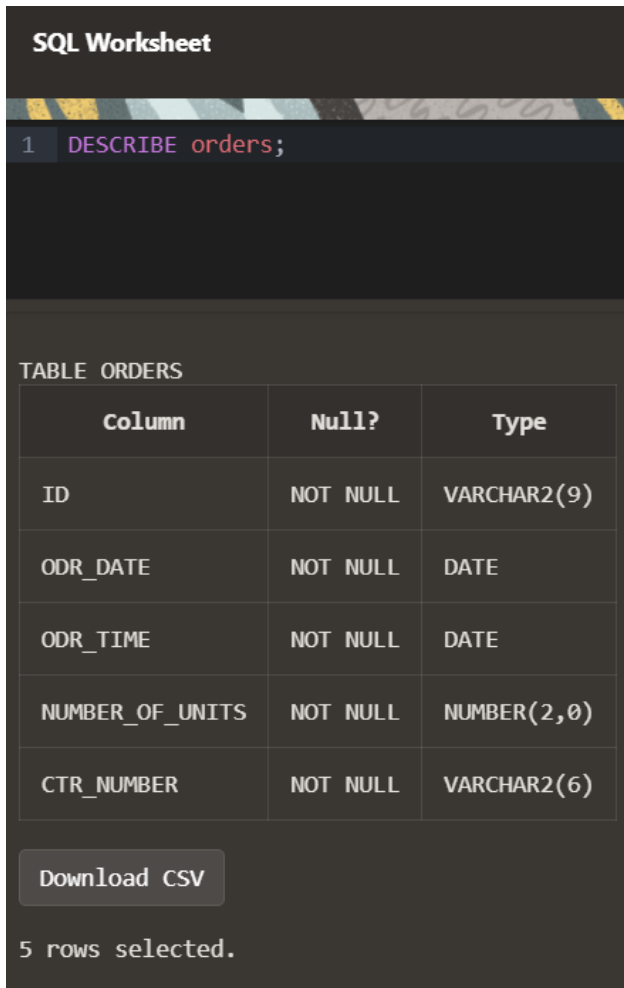
## LAB 1 SQL1-DDL

### PART 1

1. 10
2. 6
3. NOT NULL
4. ctr\_number
5. lowest value : 0, highest value : 99
6. lowest value : 0.00, highest value : 9 999 999.99
7. itm\_number, start\_date, start\_time

### PART 2 – Modifying a column

1. Run DESCRIBE on orders table.



SQL Worksheet

```
1 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)

Download CSV

5 rows selected.

2. Add default constraints

**SQL Worksheet**

```
1 v ALTER TABLE orders
2 MODIFY odr_date DEFAULT SYSDATE;
```

Table altered.

3. DESC orders

**SQL Worksheet**

```
1 DESCRIBE orders;
2
```

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)

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5 rows selected.

## PART 2 – Adding a check constraints

1. Run DESCRIBE on customers table

**SQL Worksheet**

```
1 DESCRIBE customers;  
2
```

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)

2. Add default constrains

**SQL Worksheet**

```
1 ✓ ALTER TABLE customers  
2 ADD CONSTRAINT check_balance_positive  
3 CHECK (current_balance >= 0);  
4  
5
```

Table altered.

### 3. DESCRIBE customers

**SQL Worksheet**

```
1 DESCRIBE customers;
2
3
```

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)

### 4. Result of a describe command

**CUSTOMERS**

Show All Columns **Constraints** Related Constraints Triggers Indexes Code

**Constraints**

Constraint	Type	Condition	Related Constraint	Related Table	Constraint Columns
CHECK_BALANCE_POSITIVE	Check	current_balance >= 0	-	-	-
SYS_C00137065338	Check	"CTR_NUMBER" IS NOT NULL	-	-	-
SYS_C00137065339	Check	"EMAIL" IS NOT NULL	-	-	-
SYS_C00137065340	Check	"FIRST_NAME" IS NOT NULL	-	-	-
SYS_C00137065341	Check	"LAST_NAME" IS NOT NULL	-	-	-
SYS_C00137065342	Check	"PHONE_NUMBER" IS NOT NULL	-	-	-
SYS_C00137065343	Check	"CURRENT_BALANCE" IS NOT NULL	-	-	-
CUSTOMER_PK	Primary Key	-	-	-	CUSTOMER_ID
CTR_EMAIL_UK	Unique Key	-	-	-	EMAIL
CTR_LCN_UK	Unique Key	-	-	-	LOYALTY_CARD_NUMBER

## PART 2 – Adding a column

1. Desc customers table

SQL Worksheet		
1 DESC customers;		
2		
3		
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)

2. Add column that will satisfy the client.

SQL Worksheet		
1 ✓ ALTER TABLE customers		
2 ADD mobile_phone_number VARCHAR2(11);		
3		
Table altered.		

### 3. DESCRIBE customers table

SQL Worksheet		
1 DESCRIBE customers;		
2		
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_PHONE_NUMBER	-	VARCHAR2(11)

## PART 2 – Dropping a column

### 1. Describe customers table

SQL Worksheet		
1 DESCRIBE customers;		
2		
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_PHONE_NUMBER	-	VARCHAR2(11)

2. Drop column mobile phone number

```
SQL Worksheet

1 v ALTER TABLE customers
2 DROP COLUMN mobile_phone_number;
3

Table altered.
```

3. Desc

```
SQL Worksheet

1 DESCRIBE customers;
2
```

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)