



SECD2523 DATABASE SEMESTER 1
(20232024)

TITLE:
LAB 1 DDL

LECTURER'S NAME:
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SECTION:10

BIL	NAME	MATRIC NO
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1.How many tables have been created using the CREATE TABLE statement?

10 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?

category VARCHAR2(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?

commission_rate column for the sales_representatives table can store values ranging from 0 to 99.

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

The price column of the price_history table is defined as NUMBER(7,2). This means it can store values between 0.00 and 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 – Modifying a column

1. Run DESCRIBE on orders table.

```
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)

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5 rows selected.

2. Add default constraints

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

Table altered.

3. DESC orders

```
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)

Download CSV

5 rows selected.

PART 2 – Adding a check constraints

1. Run DESCRIBE on customers table

```
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

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

```
4
```

```
5
```

Table altered.

3. DESCRIBE customers

```
1 DESCRIBE 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)

4. Result of a describe command

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

```
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.

```
1  ALTER TABLE customers
2  ADD mobile_phone_number VARCHAR2(11);
3
```

Table altered.

3. DESCRIBE customers table

```
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

```
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

```
1 v ALTER TABLE customers
2 DROP COLUMN mobile_phone_number;
3
```

Table altered.

3. Desc

```
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)