



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

**DATABASE – SECD2523**

**SECTION: 06**

**LAB 1**

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## Part 1

1) 10 table

2) 6 columns

3) statement "NOT NULL"

4) customer\_address - customer\_fk

5) commission\_rate : lowest value = -99  
highest value = 99

6) lowest value = -99999.99  
highest value = 99999.99

7) itm\_number, start\_date, start\_time

## Part 2

Modifying a column

1)

```
94 CREATE TABLE orders (
95     id          VARCHAR2(9) NOT NULL,
96     odr_date    DATE NOT NULL,
97     odr_time    DATE NOT NULL,
98     number_of_units NUMBER(2) NOT NULL,
99     ctr_number  VARCHAR2(6) NOT NULL,
100     CONSTRAINT orders_pk PRIMARY KEY ( id )
101 );
102 DESCRIBE orders
103
```

Results	Explain	Describe	Saved SQL	History					
Object Type <b>TABLE</b> Object <b>ORDERS</b>									
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERS	ID	VARCHAR2	9	-	-	1	-	-	-
	ODR_DATE	DATE	7	-	-	-	-	-	-
	ODR_TIME	DATE	7	-	-	-	-	-	-
	NUMBER_OF_UNITS	NUMBER	-	2	0	-	-	-	-
	CTR_NUMBER	VARCHAR2	6	-	-	-	-	-	-

2) ALTER TABLE orders  
MODIFY odr\_date DATE DEFAULT SYSDATE;

3)

```

94 CREATE TABLE orders (
95     id          VARCHAR2(9) NOT NULL,
96     odr_date    DATE NOT NULL,
97     odr_time    DATE NOT NULL,
98     number_of_units NUMBER(2) NOT NULL,
99     ctr_number  VARCHAR2(6) NOT NULL,
100     CONSTRAINT orders_pk PRIMARY KEY ( id )
101 );
102 ALTER TABLE orders
103 MODIFY odr_date DATE DEFAULT SYSDATE;

```

Results	Explain	Describe	Saved SQL	History					
Object Type	TABLE	Object	ORDERS						
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	-	-	-	-	-	-

## CHECK

1)

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) ALTER TABLE customers

ADD CONSTRAINT current\_balance\_ck check (current\_balance >= 0);

3)

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)

Constraint	Type	Search Condition	Related Constraint	Columns
CURRENT_BALANCE_CK	Check	current_balance >= 0		
SYS_C00149068580	Check	"CTR_NUMBER" IS NOT NULL		
SYS_C00149068581	Check	"EMAIL" IS NOT NULL		
SYS_C00149068582	Check	"FIRST_NAME" IS NOT NULL		
SYS_C00149068583	Check	"LAST_NAME" IS NOT NULL		
SYS_C00149068584	Check	"PHONE_NUMBER" IS NOT NULL		
SYS_C00149068585	Check	"CURRENT_BALANCE" IS NOT NULL		
CUSTOMER_PK	Primary			CTR_NUMBER
CTR_EMAIL_UK	Unique			EMAIL
CTR_LCN_UK	Unique			LOYALTY_CARD_NUMBER

## ADD COLUMN

1)

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) - ALTER TABLE customers





ADD mobile\_phone\_number VARCHAR(11);

3)

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	-	-	-	✓	-	-

## DROP COLUMN

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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	-	-	-		-	-	

2) - ALTER TABLE customers  
DROP (mobile\_phone\_number);

3)

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	-	-	-	☑	-	-



