

DATE / NO.

TITLE

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Lab 1 (Database)

1. 10

2. 6

3. NOT NULL

4. ctr\_number

5. -99, 99

6. -99999.99, 99999.99

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

## Part 2

### 1. Modifying a column

```
Code: describe orders;  
      alter table orders modify odr_date date default sysdate;  
      describe orders;
```

### 2. Adding a check constraint

```
Code: describe customers;  
      alter table customers add constraint check_positiveBalance check(  
      current_balance >= 0);  
      describe customers;
```

### 3. Adding a column

```
Code: describe customers;  
      alter table customers add mobile_phoneNum varchar2(11);  
      describe customers;
```

### 4. Dropping a column

```
Code: describe customers;  
      alter table customers drop column mobile_phoneNum;  
      describe customers;
```

# Appendix

## Part 2

### 1. Modifying column

```
describe orders;  
alter table orders modify odr_date date default sysdate;  
describe orders;
```

(code in Oracle SQL Live)

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)

(Table orders before modify)

Table altered.

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)

(Table orders after modify)

### 2. Adding a check constraint

```
describe customers;
alter table customers add constraint check_positiveBalance check(current_balance >= 0);
describe customers;
```

(code in Oracle SQL Live)

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)

(Table customers before adding check constraint)

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)

(Table customers after adding check constraint)

Constraints									
Constraint	Type	Condition	Related Constraint	Related Table	Constraint Columns	On Delete	Status	Last Change	Invalid?
CHECK_POSITIVEBALANCE	Check	current_balance >= 0	-	-	-	-	ENABLED	30 minutes ago	-
SYS_C00137133618	Check	"CTR_NUMBER" IS NOT NULL	-	-	-	-	ENABLED	42 minutes ago	-
SYS_C00137133619	Check	"EMAIL" IS NOT NULL	-	-	-	-	ENABLED	42 minutes ago	-
SYS_C00137133620	Check	"FIRST_NAME" IS NOT NULL	-	-	-	-	ENABLED	42 minutes ago	-
SYS_C00137133621	Check	"LAST_NAME" IS NOT NULL	-	-	-	-	ENABLED	42 minutes ago	-
SYS_C00137133622	Check	"PHONE_NUMBER" IS NOT NULL	-	-	-	-	ENABLED	42 minutes ago	-
SYS_C00137133623	Check	"CURRENT_BALANCE" IS NOT NULL	-	-	-	-	ENABLED	42 minutes ago	-
CUSTOMER_SALES_REP_FK	Foreign Key	-	SALES_REPRESENTATIVE_PK	<a href="#">SALES_REPRESENTATIVES</a>	SRE_ID	NO ACTION	ENABLED	42 minutes ago	-
CUSTOMER_TEAM_FK	Foreign Key	-	TEAM_PK	<a href="#">TEAMS</a>	TEM_ID	NO ACTION	ENABLED	42 minutes ago	-
CUSTOMER_PK	Primary Key	-	-	-	CUSTOMER_ID	-	ENABLED	42 minutes ago	-
CTR_EMAIL_UK	Unique Key	-	-	-	EMAIL	-	ENABLED	42 minutes ago	-
CTR_LCN_UK	Unique Key	-	-	-	LOYALTY_CARD_NUMBER	-	ENABLED	42 minutes ago	-

(Constraints of customers relation)

### 3. Adding column

```
describe customers;
alter table customers add mobile_phoneNum varchar2(11);
describe customers;
```

(Code in Oracle SQL Live)

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)

(Table customers before adding column)



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_PHONENUM	-	VARCHAR2(11)

(Table customers after adding column)

#### 4. Dropping column

```
describe customers;
alter table customers drop column mobile_phoneNum;
describe customers;
```

(Code in Oracle SQL Live)

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_PHONENUM	-	VARCHAR2(11)

(Table customers before dropping column)

TABLE CUSTOMERS

Column	Null?	Type
CTR_NUMBER	NOT NULL	VARCHAR2(6)
EMAIL	NOT NULL	VARCHAR2(50)
FIRST_NAME	NOT NULL	VARCHAR2(20)
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SRE_ID	-	VARCHAR2(4)
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LOYALTY_CARD_NUMBER	-	VARCHAR2(6)

(Table customers after dropping column)