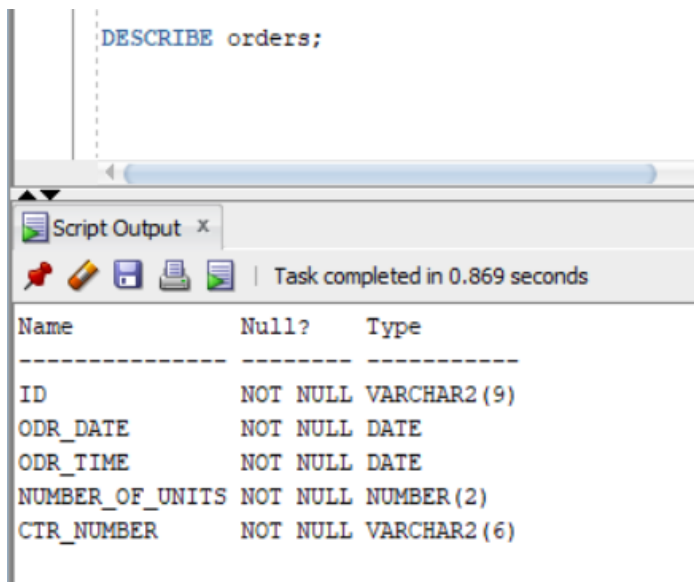## Part 1:

1. 10
2. 6
3. NOT NULL
4. ctr_number
5. lowest : -99
   highest : 99
6. lowest : -99999.99
   highest : 99999.99
7. start_date, start_time, itm_number

Part 2:

Modifying a column

1. DESCRIBE orders;

```
DESCRIBE orders;
```

Script Output ×

| Task completed in 0.869 seconds

Name	Null?	Type
ID	NOT NULL	VARCHAR2(9)
ODR_DATE	NOT NULL	DATE
ODR_TIME	NOT NULL	DATE
NUMBER_OF_UNITS	NOT NULL	NUMBER(2)
CTR_NUMBER	NOT NULL	VARCHAR2(6)

2. alter table orders
modify (odr_date DATE DEFAULT SYSDATE);

```
ALTER TABLE orders
MODIFY (odr_date DATE DEFAULT SYSDATE);
```

Task completed in 0.113 seconds

```
Name              Null?     Type
----------------  --------  -----------
ID                NOT NULL  VARCHAR2(9)
ODR_DATE          NOT NULL  DATE
ODR_TIME          NOT NULL  DATE
NUMBER_OF_UNITS   NOT NULL  NUMBER(2)
CTR_NUMBER        NOT NULL  VARCHAR2(6)

Table ORDERS altered.
```

3. describe orders;

```
DESCRIBE orders;
```

Task completed in 0.068 seconds

```
ID                NOT NULL  VARCHAR2(9)
ODR_DATE          NOT NULL  DATE
ODR_TIME          NOT NULL  DATE
NUMBER_OF_UNITS   NOT NULL  NUMBER(2)
CTR_NUMBER        NOT NULL  VARCHAR2(6)

Table ORDERS altered.

Name              Null?     Type
----------------  --------  -----------
ID                NOT NULL  VARCHAR2(9)
ODR_DATE          NOT NULL  DATE
ODR_TIME          NOT NULL  DATE
NUMBER_OF_UNITS   NOT NULL  NUMBER(2)
CTR_NUMBER        NOT NULL  VARCHAR2(6)
```

Adding a check constraint:

1. describe customers:

```
DESCRIBE customers;
```

Script Output ✕

Task completed in 0.591 seconds

```
CTR_NUMBER              NOT NULL VARCHAR2(6)
Name                    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. alter table customers
   add constraint cus_current_balance check (current_balance >= 0);

```
ALTER TABLE customers
ADD CONSTRAINT CUS_current_balance CHECK (current_balance >=0);
```
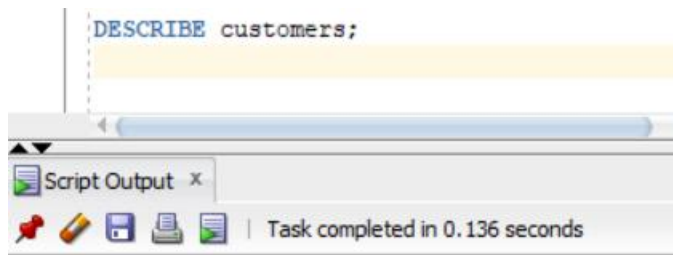
Script Output ✕

Task completed in 0.08 seconds

```
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 altered.
```

3. describe customers;

```
DESCRIBE customers;
```

```
Name                    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.

Columns | Data | Model | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

CONSTRAINT_NAME	CONSTRAINT_TYPE	SEARCH_CONDITION	R_OWNER	R_TABLE_NAME	R_CONSTRAINT_NAME	DELETE_RULE	STATUS	DEFERRABLE	VALIDATED	GENERATED	BAD
1 CTR_EMAIL_UK	Unique	(null)	(null)	(null)	(null)	(null)	ENABLED	NOT DEFERRABLE	VALIDATED	USER NAME	(null)
2 CTR_LCN_UK	Unique	(null)	(null)	(null)	(null)	(null)	ENABLED	NOT DEFERRABLE	VALIDATED	USER NAME	(null)
3 CUSTOMER_PK	Primary_Key	(null)	(null)	(null)	(null)	(null)	ENABLED	NOT DEFERRABLE	VALIDATED	USER NAME	(null)
4 CUSTOMER_SALES_REP_FK	Foreign_Key	(null)	SYSTEM	SALES_REPRESENTATIVES	SALES_REPRESENTATIVE_PK	NO ACTION	ENABLED	NOT DEFERRABLE	VALIDATED	USER NAME	(null)
5 CUSTOMER_TEAM_FK	Foreign_Key	(null)	SYSTEM	TEAMS	TEAM_PK	NO ACTION	ENABLED	NOT DEFERRABLE	VALIDATED	USER NAME	(null)
6 CUS_CURRENT_BALANCE	Check	current_balance >=0	(null)	(null)	(null)	(null)	ENABLED	NOT DEFERRABLE	VALIDATED	USER NAME	(null)
7 SYS_C008254	Check	"CTR_NUMBER" IS NOT NULL	(null)	(null)	(null)	(null)	ENABLED	NOT DEFERRABLE	VALIDATED	GENERATED NAME	(null)
8 SYS_C008255	Check	"EMAIL" IS NOT NULL	(null)	(null)	(null)	(null)	ENABLED	NOT DEFERRABLE	VALIDATED	GENERATED NAME	(null)
9 SYS_C008256	Check	"FIRST_NAME" IS NOT NULL	(null)	(null)	(null)	(null)	ENABLED	NOT DEFERRABLE	VALIDATED	GENERATED NAME	(null)
10 SYS_C008257	Check	"LAST_NAME" IS NOT NULL	(null)	(null)	(null)	(null)	ENABLED	NOT DEFERRABLE	VALIDATED	GENERATED NAME	(null)
11 SYS_C008258	Check	"PHONE_NUMBER" IS NOT NULL	(null)	(null)	(null)	(null)	ENABLED	NOT DEFERRABLE	VALIDATED	GENERATED NAME	(null)
12 SYS_C008259	Check	"CURRENT_BALANCE" IS NOT NULL	(null)	(null)	(null)	(null)	ENABLED	NOT DEFERRABLE	VALIDATED	GENERATED NAME	(null)

Adding a column

1. describe customers

```
DESCRIBE customers;
```

```
Name                   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. alter table customers
    add mobile_phone_number number(11);

```
ALTER TABLE customers
add mobile_phone_number number(11);
```

```
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 altered.
```

3. describe customers;

```
DESCRIBE customers;
```

Script Output ×

| Task completed in 0.099 seconds

Name	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		NUMBER(11)

Dropping a column

1. describe customers;

```
DESCRIBE customers;
```

Script Output ×

| Task completed in 0.099 seconds

Name	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		NUMBER(11)

2. alter table customers
   drop (MOBILE_PHONE_NUMBER);

```
ALTER TABLE customers
drop (mobile_phone_number);
```

Script Output ×

Task completed in 0.338 seconds

```
Error starting at line : 185 in command -
ALTER TABLE customers
drop mobile_phone_number
Error report -
ORA-00905: missing keyword
00905. 00000 -  "missing keyword"
*Cause:
*Action:

Table CUSTOMERS altered.
```

3. describe customers;

```
DESCRIBE customers;
```

Script Output ×

Task completed in 0.078 seconds

```
-------------------- -------- ------------
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)
```