Part 1

1. 10

2. 6

3. NOT NULL

4. ctr_number

5. lowest : -99

   highest : 99

6. lowest : -9999999

   highest : 9999999

7. start_date, start_time, itm-number

Part 2

Modifying a column:

1.

2.

3.

Adding a check constraint :

1.

2.


```
ALTER TABLE sales_representatives ADD CONSTRAINT sales_rep_sales_rep_fk FOREIGN KEY ( supervisor_id ) REFERENCES sales_representatives ( id );

CREATE OR REPLACE TRIGGER fkntm_orders BEFORE
    UPDATE OF ctr_number ON orders
BEGIN
    raise_application_error(
        -20225,
        'Non Transferable FK constraint  on table orders is violated'
    );
END;
/

describe orders;
alter table orders
modify (odr_date DATE DEFAULT SYSDATE);
describe orders;

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

```
                       NOT NULL VARCHAR2(30)
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.


```
ALTER TABLE sales_representatives ADD CONSTRAINT sales_rep_sales_rep_fk FOREIGN KEY ( supervisor_id ) REFERENCES sales_representatives ( id );

CREATE OR REPLACE TRIGGER fkntm_orders BEFORE
    UPDATE OF ctr_number ON orders
BEGIN
    raise_application_error(
        -20225,
        'Non Transferable FK constraint  on table orders is violated'
    );
END;
/

describe orders;
alter table orders
modify (odr_date DATE DEFAULT SYSDATE);
describe orders;

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

Adding a column :

1.

2.

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Welcome Page   DB_LAB1.sql

SQL Worksheet History

0.28600001 seconds

Worksheet   Query Builder

```
BEGIN
    raise_application_error(
        -20225,
        'Non Transferable FK constraint  on table orders is violated'
    );
END;
/

describe orders;
alter table orders
modify (odr_date DATE DEFAULT SYSDATE);
describe orders;

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

describe customers;
alter table customers
add mobile_phone_number number(11);
```

Script Output ×

Task completed in 0.286 seconds

```
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.
```

26°C Mostly cloudy   英   11:12 PM

3.

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Welcome Page   DB_LAB1.sql

SQL Worksheet History

Worksheet   Query Builder

```
    raise_application_error(
        -20225,
        'Non Transferable FK constraint  on table orders is violated'
    );
END;
/

describe orders;
alter table orders
modify (odr_date DATE DEFAULT SYSDATE);
describe orders;

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

describe customers;
alter table customers
add mobile_phone_number number(11);
describe customers;
```
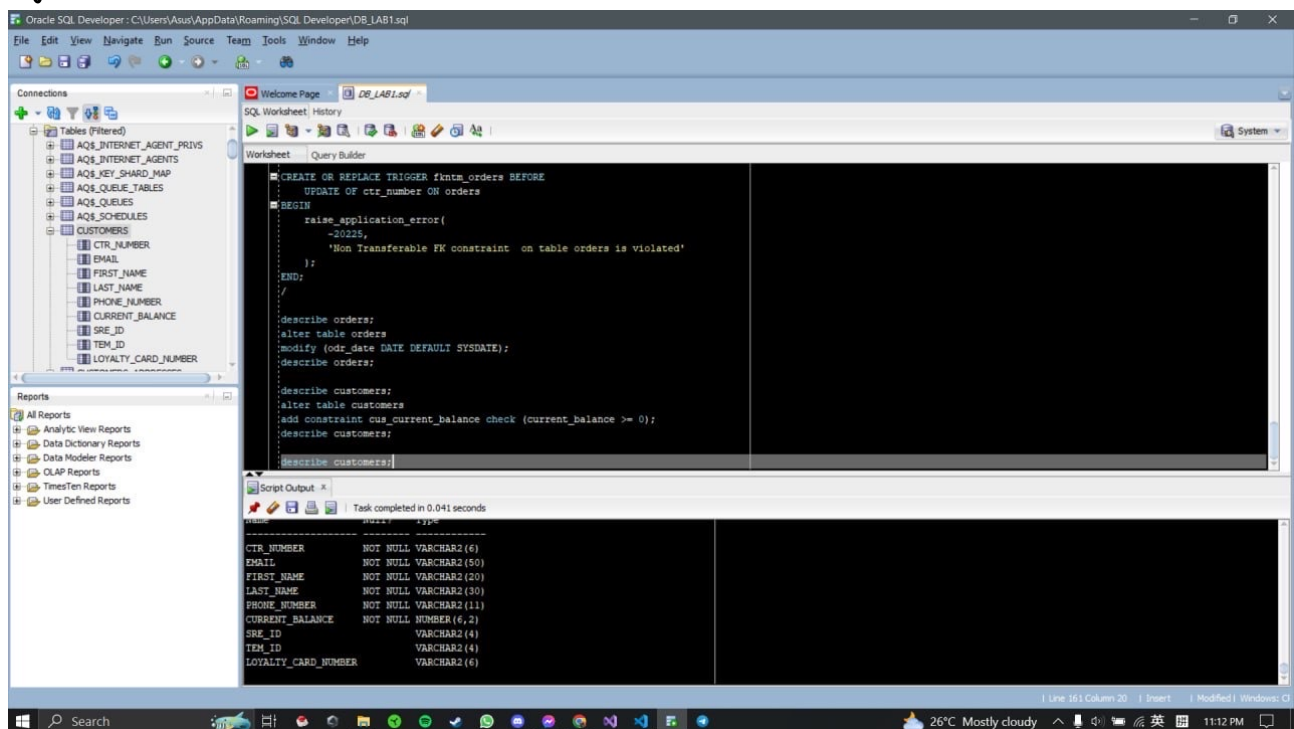
Script Output ×

Task completed in 0.033 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)
MOBILE_PHONE_NUMBER          NUMBER(11)
```

26°C Mostly cloudy   英   11:12 PM

Dropping a column :

1.

2.

3.

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Connections

Tables (Filtered)
- AQ$_INTERNET_AGENT_PRIVS
- AQ$_INTERNET_AGENTS
- AQ$_KEY_SHARD_MAP
- AQ$_QUEUE_TABLES
- AQ$_QUEUES
- AQ$_SCHEDULES
- CUSTOMERS
  - CTR_NUMBER
  - EMAIL
  - FIRST_NAME
  - LAST_NAME
  - PHONE_NUMBER
  - CURRENT_BALANCE
  - SRE_ID
  - TEM_ID
  - LOYALTY_CARD_NUMBER

Reports

All Reports
- Analytic View Reports
- Data Dictionary Reports
- Data Modeler Reports
- OLAP Reports
- TimesTen Reports
- User Defined Reports

Welcome Page   DB_LAB1.sql

SQL Worksheet History

Worksheet Query Builder

```
/

describe orders;
alter table orders
modify (odr_date DATE DEFAULT SYSDATE);
describe orders;

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

describe customers;
alter table customers
add mobile_phone_number number(11);
describe customers;

describe customers;
alter table customers
drop (MOBILE_PHONE_NUMBER);
describe customers;
```

Script Output

Task completed in 0.029 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)

Line 169 Column 20   Insert   Modified   Windows: Cf