

Problem 1:

Create the following table:

➤ Table name: customer ➤ Columns:

o customerID (whole number max 4 digits)

o customerName (variable character max 50 characters) o customerSince(date)

Primary key on column customerID named customer_pk

SQL script:

```
SQL> CREATE TABLE customer (  
2 customerID NUMBER(4) CONSTRAINT customer_pk PRIMARY KEY,  
3 customerName VARCHAR2(50),  
4 customerSince DATE  
5 );
```

```
SQL> CREATE TABLE customer (  
2 customerID NUMBER(4) CONSTRAINT customer_pk PRIMARY KEY,  
3 customerName VARCHAR2(50),  
4 customerSince DATE  
5 );
```

Table created.

```
SQL> DESC customer;
```

Name	Null?	Type
CUSTOMERID	NOT NULL	NUMBER(4)
CUSTOMERNAME		VARCHAR2(50)
CUSTOMERSINCE		DATE

```
SQL>  
SQL>  
SQL>  
SQL>  
SQL>  
SQL>  
SQL>  
SQL>  
SQL>  
SQL>  
SQL>
```

Problem 2:

Execute the following two statements (inserting one sample record into table customer and verifying that record was correctly inserted):

➤ INSERT INTO customer VALUES(1008, 'New Customer', sysdate); ➤ SELECT * FROM customer;

SQL script:

```
SQL> INSERT INTO customer VALUES (1008, 'New Customer', sysdate);
```

```
SQL> INSERT INTO customer VALUES (1008, 'New Customer', sysdate);
1 row created.
SQL> SELECT * FROM customer;
CUSTOMERID CUSTOMERNAME CUSTOMERS
-----
1008 New Customer 18-OCT-22
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
SQL>
```

Problem 3:

Create a second table:

➤ Table name: orders ➤ Columns:

o orderID(wholenummax8digits)_{SEP}

o orderDate(date)_{SEP}

o shippingMethod(variablecharactermax25characters) o customerID (whole number max 4 digits)

➤ Primary key on column orderID named orderID_pk_{SEP}

➤ Foreign key on column customerID relating to column customerID in table customer named customerid_fk

SQL script:

```
SQL> CREATE TABLE orders (
```

```
2 orderID NUMBER(8) CONSTRAINT customerID_pk PRIMARY KEY,
```

```
3 orderDate DATE,
```

```
4 shippingMethod VARCHAR2(25),
```

```

5 customerID NUMBER(4),
6 CONSTRAINT customerid_fk FOREIGN KEY (customerID) REFERENCES customer (customerID)
7 );

```

```

SQL> CREATE TABLE orders (
2  orderID NUMBER(8) CONSTRAINT customerID_pk PRIMARY KEY,
3  orderDate DATE,
4  shippingMethod VARCHAR2(25),
5  customerID NUMBER(4),
6  CONSTRAINT customerid_fk FOREIGN KEY (customerID) REFERENCES customer (customerID)
7 );

```

Table created.

```
SQL> DESC orders;
```

Name	Null?	Type
ORDERID	NOT NULL	NUMBER(8)
ORDERDATE		DATE
SHIPPINGMETHOD		VARCHAR2(25)
CUSTOMERID		NUMBER(4)

```

SQL>
SQL>
SQL>
SQL>
SQL>
SQL>

```

Problem 4:

Execute the following statements:

```

INSERT INTO orders VALUES(12345678, sysdate, '2-Day', 1008); ➤ INSERT INTO orders
VALUES(88888888, sysdate, '2-Day', 1009); ➤ SELECT * FROM orders;

```

SQL script:

```

SQL> INSERT INTO orders VALUES (12345678, sysdate, '2-Day', 1008);
SQL> INSERT INTO orders VALUES(88888888, sysdate, '2-Day', 1009);
SQL> SELECT * FROM orders;

```

```

SQL> INSERT INTO orders VALUES (12345678, sysdate, '2-Day', 1008);

1 row created.

SQL> INSERT INTO orders VALUES(88888888, sysdate, '2-Day', 1009);

INSERT INTO orders VALUES(88888888, sysdate, '2-Day', 1009)
*
ERROR at line 1:
ORA-02291: integrity constraint (STUDENT.CUSTOMERID_FK) violated - parent key
not found

SQL> SELECT * FROM orders;

  ORDERID ORDERDATE SHIPPINGMETHOD      CUSTOMERID
-----
12345678 18-OCT-22 2-Day                      1008

SQL>

SQL>

SQL>

```

Problem 5:

The second INSERT statement fails because, in the parent table, there's no customerID key entitled 1009. We must make sure the parent table has the mentioned key.