Question 5. [8 MARKS]

Suppose I have a file called `nonsense.ddl` containing this:

```
DROP SCHEMA IF EXISTS rp CASCADE;
CREATE SCHEMA rp;
SET SEARCH_PATH TO rp;

CREATE TABLE Things (
   A INT PRIMARY KEY,
   B INT,
   C INT UNIQUE
);

CREATE TABLE Junk (
   G INT PRIMARY KEY,
   H INT,
   I INT,
   FOREIGN KEY (I) REFERENCES Things(A) ON UPDATE CASCADE ON DELETE CASCADE
);

CREATE TABLE Stuff (
   D INT,
   E INT,
   F INT PRIMARY KEY,
   FOREIGN KEY (E) REFERENCES Things(C) ON UPDATE RESTRICT ON DELETE SET NULL,
   FOREIGN KEY (E) REFERENCES Junk(G) ON UPDATE SET NULL ON DELETE CASCADE
);
```

Part (a) [2 MARKS]

Suppose I imported this file into postgreSQL using the command `\i nonsense.ddl` and then a few weeks later the following happened when I tried to access table `Junk`.

```
dbsrv1% psql csc343h-dianeh
psql (9.1.15, server 9.1.14)
Type "help" for help.


csc343h-dianeh=> SELECT * FROM Junk;
ERROR:  relation "junk" does not exist
LINE 1: SELECT * FROM Junk;
                      ^
```

OR Set search_path to rp;

rp.

Modify my interaction above so that the `SELECT` statement works.

Part (b) [2 MARKS]

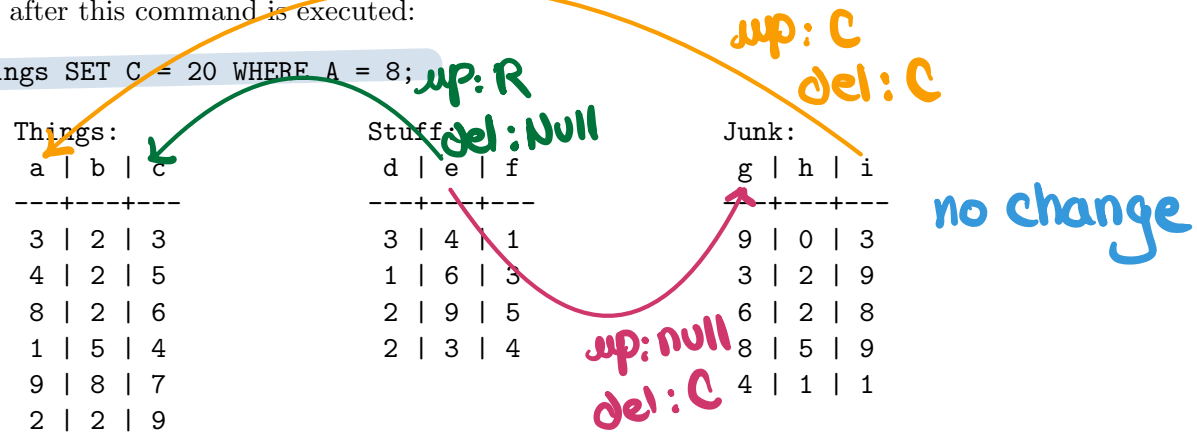
What is the most important thing that is the same about `PRIMARY KEY` and `UNIQUE`?

What is one important difference between `PRIMARY KEY` and `UNIQUE`?

Part (c) [2 MARKS]

Suppose the tables have been populated as shown below. Modify the data to show the contents of the three tables after this command is executed:

```
UPDATE Things SET C = 20 WHERE A = 8;
```



Things:

a	b	c
3	2	3
4	2	5
8	2	6
1	5	4
9	8	7
2	2	9

Stuff:

d	e	f
3	4	1
1	6	3
2	9	5
2	3	4

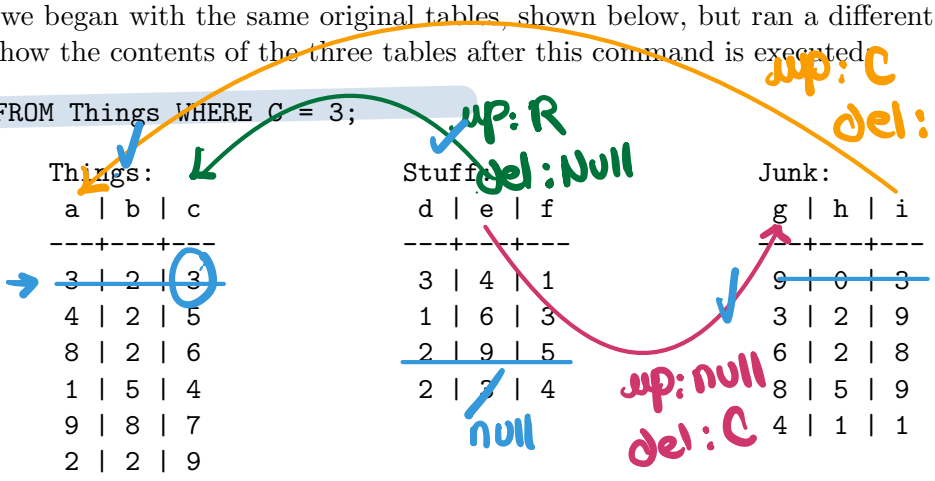
Junk:

g	h	i
9	0	3
3	2	9
6	2	8
8	5	9
4	1	1

Part (d) [2 MARKS]

Suppose we began with the same original tables, shown below, but ran a different command. Modify the data to show the contents of the three tables after this command is executed:

```
DELETE FROM Things WHERE C = 3;
```



Things:

a	b	c
~~3~~	~~2~~	~~3~~
4	2	5
8	2	6
1	5	4
9	8	7
2	2	9

Stuff:

d	e	f
3	4	1
1	6	3
~~2~~	~~9~~	~~5~~
2	~~3~~	4

Junk:

g	h	i
~~9~~	~~0~~	~~3~~
3	2	9
6	2	8
8	5	9
4	1	1