Relationship Cardinality Assignment

You will be using your PostgreSQL installations again to write a SQL script utilizing the SQL DDL commands **Drop Table** and **Create Table**. You will need to make use of *column constraints* and *table constraints* and your knowledge of relationship cardinalities.

Start postgres and pgAdmin through docker as with your previous assignment. Write all of your SQL using the Query Tool, then copy and paste your code to a plain-text file called **cardinality.SQL**.

Your SQL file should contain the following elements in this order :

1. **DROP TABLE** commands for every table in your script. Use **IF EXISTS** and **CASCADE** for each **DROP**.
2. **CREATE TABLE** commands to produce tables meeting the requirements given below.

Create each table in the diagrams in the attached file **relationships.pdf**. You must make use of **not null**, **unique**, and key constraints to enforce the cardinality of the relationships as drawn in the diagrams.

The diagrams were made using *MySQL Workbench* and utilizes the following icons:

- **Primary Key Column:** 
- **Foreign Key Column:** 
- **Foreign Key Non-Null Column:** 
- **Non-key Column:** 
- **Non-key Non-Null Column:** 

Additionally, note the following:

- If there are two or more primary key columns in a table, then the primary key is *composite*.
- If there are two or more foreign key columns in a table, it may be a *composite* foreign key or multiple foreign keys. You will have to infer which is which from the relationships.
- *Mandatory* relationships are enforced through the **not null** keyword.
- *Optional* relationships are enforced through the **unique** keyword.

Note: Using **not null** and **unique** correctly will factor heavily into your grade. Use them in the correct columns, and do ***not*** use them where they are not needed (for example, why would every student need a unique last name?). The diagrams give hints for non-null columns, but you will need to use the relationships to figure out which columns are unique.
