DDL Exercises

Schema

Student(sID, surName, firstName, campus, email, cgpa)  Offering(dept, cNum) ⊆ Course[dept, cNum]
Course(dept, cNum, name, breadth)                     Took[sID] ⊆ Student[sID]
Offering(oID, dept, cNum, term, instructor)          Took[oID] ⊆ Offering[oID]
Took(sID, oID, grade)

Questions

1. Write a query to create the table Student. Make the sID be a Primary Key.

2. Adjust your previous query to add the following constraints:
   - each pair (surName, firstName) must be Unique.
   - firstName and surName cannot be null.
   - campus should be only ‘StG’, ‘UTM’, or ‘UTSC’.
   - cgpa should be between 0 and 4.0.
   - email must contain a ‘@’ character (remember the LIKE operator).
3. Suppose \( R = \text{Took} \) and \( S = \text{Student} \). What type of actions on these relations must be simply rejected, based on the definitions from the schema?

4. What should happen in these situations?
   a) csc343 changes number to be 543
   b) student 99132 is deleted
   c) student 99132s grade in csc148 is raised to 85.
   d) csc148 is deleted