2. Inserting Data into a Table

- Insert the following records into the `students` table:
  i. (1, 'Alice', 'Johnson', 'alice.johnson@example.com', '2025-01-15', 85.50)
  ii. (2, 'Bob', 'Smith', 'bob.smith@example.com', '2025-02-10', 90.00)
  iii. (3, 'Charlie', NULL, 'charlie@example.com', '2025-03-05', NULL)

3. Working with NULL Values

- Write a query to retrieve all students whose `lastName` is NULL.
- Write a query to retrieve all students whose `grade` is NULL or less than 60.

4. Updating Records

- Update the `lastName` of the student with `studentID = 3` to 'Brown'.
- Increase the `grade` of all students by 5 points.

5. Deleting Records

- Delete the record of the student with `studentID = 1` .
- Delete all students whose `grade` is less than 70.

6. Altering Tables

- Add a new column `phoneNumber` (VARCHAR(15)) to the `students` table.
- Modify the `grade` column to have a data type of INT.
- Rename the `email` column to `contactEmail` .

7. Constraints

- Add a `NOT NULL` constraint to the `firstName` column.
- Add a `UNIQUE` constraint to the `contactEmail` column.

- Add a `CHECK` constraint to ensure that `grade` is greater than or equal to 0.

8. Foreign Key Relationships

- Create a new table `courses` with the following columns:
  - `courseID` (INT, Primary Key)
  - `courseName` (VARCHAR(50))
  - `instructor` (VARCHAR(50))
- Add a column `courseID` to the `students` table and set it as a foreign key referencing the `courseID` in the `courses` table.

9. Querying Data

- Write a query to retrieve all students along with their course names.
- Write a query to count the number of students enrolled in each course.

10. Dropping Columns and Constraints

- Drop the `phoneNumber` column from the `students` table.
- Remove the `CHECK` constraint on the `grade` column.

11. Advanced Practice

- Create a table `teachers` with the following columns:
  - `teacherID` (INT, Primary Key)
  - `firstName` (VARCHAR(30))
  - `lastName` (VARCHAR(30))
  - `email` (VARCHAR(50), UNIQUE)
- Establish a foreign key relationship between the `courses` table and the `teachers` table using `teacherID`.
- Write a query to retrieve all courses along with their instructor names.

12. Bonus

- Write a query to find the highest grade in the `students` table.
- Write a query to retrieve students who were enrolled after '2025-02-01'.