Task Performance
Common Table Expression (CTE)

Objectives:

At the end of the exercise, the students should be able to:

■ Specify a temporary result set using the WITH clause.
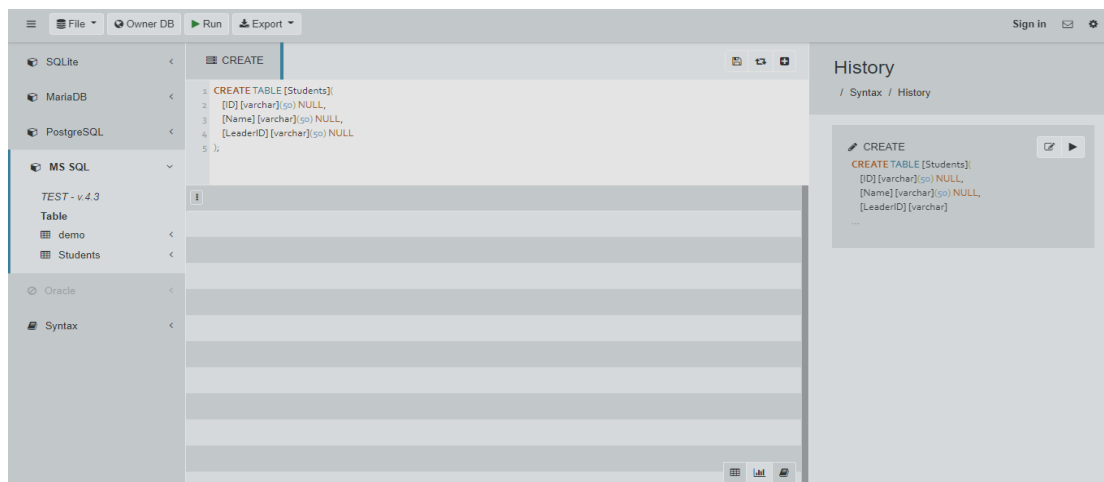
Software Requirement:

■ Internet connection
■ Web Browser

Instructions:

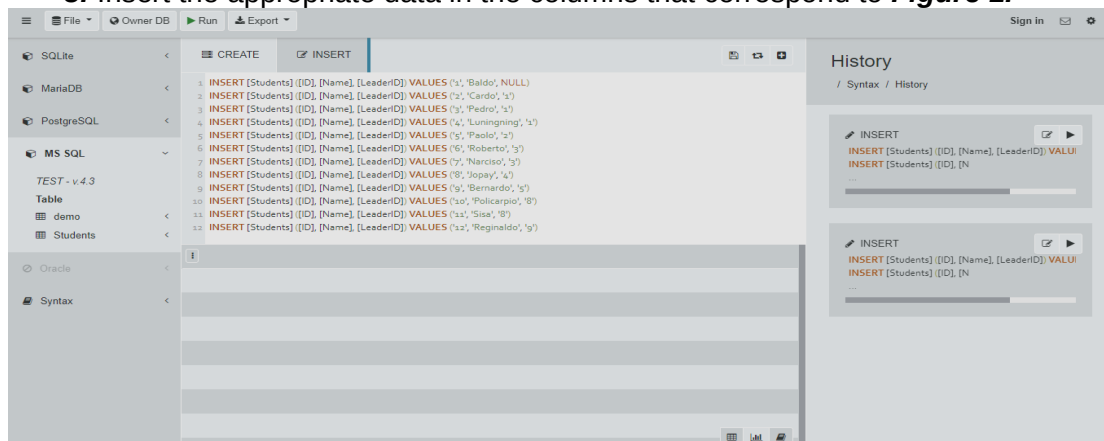**1.** Go to https://sqliteonline.com/, in the left-side corner expanded the MS SQL tab then click the Click to connect.
Note: *After 15 minutes of being idle, all data that have been located in the website wil be automatically deleted.*

2. Create a table named Students having the following column: ***ID, Name*, and *LeaderID.***

3. Insert the appropriate data in the columns that correspond to *Figure 1.*

4. Using the WITH operator, create a recursive Common Table Expression (CTE) that displays the ranking of the students based on the hierarchy structure in *Figure 1.*

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SQLite   ≣ CREATE   ☑ INSERT   ☑ OUTPUT   🖫 ⇄ ➕

MariaDB   History
                                                                       / Syntax / History
PostgreSQL

MS SQL   1 ;WITH RankStructure(ID, Name, LeaderID, Rank) AS
                        2 (🖉 OUTPUT   ☑ ▶
TEST - v.4.3   3   SELECT ID, Name, LeaderID, 0 AS Rank   ;WITH RankStructure(ID, Name, LeaderID, Rank) A
Table   4   FROM Students   (
 demo   5   WHERE LeaderID IS NULL   SELECT ID, Name, LeaderID, 0 AS Rank
 Students   6   UNION ALL   FROM Stude
                        7   SELECT s.ID, s.Name, s.LeaderID, r.Rank + 1 ...
Oracle   8   FROM Students s
                        9   INNER JOIN RankStructure r
Syntax   10   ON r.ID = s.LeaderID   🖉 INSERT   ☑ ▶
                        11)   INSERT [Students] ([ID], [Name], [LeaderID]) VALI
                        12 SELECT ID, Name, Rank   INSERT [Students] ([ID], [N
                        13 FROM RankStructure   ...
                        14 ORDER BY Rank

ID	Name	Rank
1	Baldo	0
1	Baldo	0
1	Baldo	0
2	Cardo	1
3	Pedro	1
4	Luningning	1
2	Cardo	1

5. See the sample ranking in figure 2.

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SQLite   ≣ CREATE   ☑ INSERT   ☑ OUTPUT   🖫 ⇄ ➕

MariaDB   History
                                                                       / Syntax / History
PostgreSQL   9   INNER JOIN RankStructure r
                       10   ON r.ID = s.LeaderID
MS SQL   11)

TEST - v.4.3 | ID | Name | Rank |
Table |----|------|------|
 demo | 1 | Baldo | 0 | 🖉 OUTPUT   ☑ ▶
 Students | 2 | Cardo | 1 | ;WITH RankStructure(ID, Name, LeaderID, Rank) A
                       | 3 | Pedro | 1 | (
Oracle | 4 | Luningning | 1 | SELECT ID, Name, LeaderID, 0 AS Rank
                       | 8 | Jopay | 2 | FROM Stude
Syntax | 6 | Roberto | 2 | ...
                       | 7 | Narciso | 2 |
                       | 5 | Paolo | 2 | 🖉 INSERT   ☑ ▶
                       | 9 | Bernardo | 3 | INSERT [Students] ([ID], [Name], [LeaderID]) VALI
                       | 10 | Policarpio | 3 | INSERT [Students] ([ID], [N
                       | 11 | Sisa | 3 | ...
                       | 12 | Reginaldo | 4 |
                                                                       🖉 CREATE   ☑ ▶
                                                                       CREATE TABLE [Students](
                                                                         [ID] [varchar](50) NULL,
                                                                         [Name] [varchar](50) NULL,
                                                                         [LeaderID] [varchar]