Write up for Create a School Database

Git Hub Link: https://github.com/kiruthigarajendran1903/Phase2_PP_Create-a-School-Database/blob/master/Create%20a%20School%20Database.sql

Step 1: Database Creation

- Open SQL Server Management Studio (SSMS).
- Connect to your SQL Server instance.
- Right-click on "Databases" in the Object Explorer and select "New Database."
- I have given “Practice1Db” as my database name.

Step 2: Creating Tables

- Let's create the necessary tables: Student, Subjects, and Classes and values has inserted for these tables also.
- Subjects Table Creation: The script creates a table named Subjects with columns SubjectID as the primary key and SubjectName.
- Classes Table Creation: The script creates a table named Classes with columns ClassID as the primary key and ClassName.
- Students Table Creation: The script creates a table named Students with columns StudentID as the primary key, along with FirstName, LastName, DateOfBirth, ClassID (which is a foreign key referencing Classes), and SubjectID (which is a foreign key referencing Subjects).
- Inserted Data into Subjects Table: The script inserts multiple rows of data into the Subjects table with subject IDs and names.
- Inserted Data into Classes Table: The script inserts multiple rows of data into the Classes table with class IDs and names.
- Inserted Data into Students Table: The script inserts multiple rows of data into the Students table with student IDs, first names, last names, dates of birth, class IDs, and subject IDs.

Step 3: Adding Indexes

- Added appropriate indexes to improve the performance of your database queries.
- Created Indexes: The script creates two indexes, SCid_index on the ClassID column of the Students table and SSid_index on the SubjectID column of the Students table.

Step 4: Data Retrieving

- Retrieved Data from Classes, Students, and Subjects Tables: The script includes three separate SELECT statements to retrieve all data from the Classes, Students, and Subjects tables, respectively.
- Retrieved Student Information: The script retrieves student information along with class and subject details using a SELECT statement that performs INNER JOIN operations on the Students, Classes, and Subjects tables. It fetches student IDs, full names, dates of birth, class IDs, class names, subject IDs, and subject names.