17. Develop a program to perform (Insert and delete) database operations using SQLite Database.

SQLite is an open-source lightweight relational database management system (RDBMS) to perform database operations, such as storing, updating, retrieving data from the database.
To deal with large amounts of data, **SQLite database** is the preferable option to store and maintain the data in a structured format.

By default, Android comes with built-in SQLite Database support so we don't need to do any configurations. SQLite is the name of the entire database system that is favored by Android and it has its own version of SQL. Every app has access to SQLite database by default. The database is private to that app.

A database is both a place of storage and the means to retrieve, store, and manipulate data. It helps to visualize a database before learning how to use it. The actual structure of the internals of a database varies greatly depending upon the database in question. SQLite actually stores all its data in a single file.

It will aid our comprehension greatly however if we visualize our data as if it were in a spreadsheet or sometimes, multiple spreadsheets. Our database, like a spreadsheet, will be divided into multiple columns that represent different types of data and rows which represent entries into the database.

A database with names and exam scores can have a visual representation of data as –

_ID	name	score
1	Bart	23
2	Lisa	100
3	Jim	66

SQLiteOpenHelper and SQLiteDatabase

The SQLiteDatabase class is the class that represents the actual database. The SQLiteOpenHelper class is where most of the action takes place. This class will enable us to get access to a database and initialize an instance of SQLiteDatabase.

The SQLiteOpenHelper, has two methods to override. First, it has an onCreate method, which is called the first time a database is used, and therefore incorporate our SQL in which to create our table structure.

The other method to override is onUpgrade is called when we upgrade our database (ALTER its structure).

Method	Description
onCreate()	This method is called only once throughout the application after the database is created and the table creation statements can be written in this method.
onUpgrade()	This method is called whenever there is an updation in the database like modifying the table structure, adding constraints to the database, etc.

Q.1. Write code snippet for creating the database and tables using the **SQLiteOpenHelper** class in our android application.

Q.2. Write code snippet to insert data into the SQLite database using the **insert()** method in the android application.

Q.3. Write code snippet to delete the data from the SQLite database using the **delete()** method in the android application.

Q. Create a database to hold Id, name, surname and marks of students. Insert values into the database.

Also Delete values from the database.