WRITE DOWN DIFFERENT TYPES/STEPS IN NORMALIZATION SQL.

Normalization is a set of rules that are applied to a database, such that the schema of the database ensures that all the rules are being followed. These rules are also known as Normal Forms and are widely used while designing database solutions.

Normalization process can be divided into following types:

1. First Normal Form (1NF)
2. Second Normal Form (2NF)
3. Third Normal Form (3NF)
4. Boyce-Codd Normal Form or Fourth Normal Form (BCNF of 4NF)
5. Fifth Normal Form (5NF)
6. Sixth Normal Form (6NF)

In this article, we will only understand the concepts of 1NF, 2NF and 3NF with examples. The next normal forms are out of scope for this article and will not be discussed here.

Now, let us understand the rules that needs to be applied for each normal form.

First Normal Form (1NF)

* Data is stored in tables with rows that can be uniquely identified by a Primary Key.
* Data within each table is stored in individual columns in its most reduced form.
* There are no repeating groups.

Second Normal Form (2NF)

* All the rules from 1NF must be satisfied.
* Only those data that relates to a table’s primary key is stored in each table.

Third Normal Form (3NF)

* All the rules from 2NF must be satisfied.
* There should be no intra-table dependencies between the columns in each table.