1. Perform all the necessary steps to implement 1NF:

If a relation contains a composite or multi-valued attribute, it violates the first normal form.

A relation is in first normal form if every attribute in that relation is singled valued attribute.

Steps to implement 1NF:

1. There are only Single Valued Attributes.
2. Attribute Domain does not change.
3. There is a unique name for every Attribute/Column.
4. The order in which data is stored does not matter.

2. Perform all the necessary steps to implement 2NF:

The second Normal Form (2NF) is based on the concept of full functional dependency. The second Normal Form applies to relations with composite keys, that is, relations with a primary key composed of two or more attributes. A relation with a single-attribute primary key is automatically in at least 2NF.

A relation that is not in 2NF may suffer from the update anomalies.

To be in second normal form, a relation must be in first normal form and relation must not contain any partial dependency. A relation is in 2NF if it has No Partial Dependency, i.e., no non-prime attribute (attributes which are not part of any candidate key) is dependent on any proper subset of any candidate key of the table.

Steps to implement 2NF:

1. In the 2NF, relational must be in 1NF.
2. In the second normal form, all non-key attributes are fully functional dependent on the primary key.

3. Perform all the necessary steps to implement 3NF

A relation is in the third normal form if there is no transitive dependency for non-prime attributes as well as it is in the second normal form.

A relation is in 3NF if at least one of the following conditions holds in every non-trivial function dependency X –> Y:

Steps to implement 3NF:

1. A relation will be in 3NF if it is in 2NF and not contain any transitive partial dependency.

2. 3NF is used to reduce data duplication. It is also used to achieve data integrity.

3. If there is no transitive dependency for non-prime attributes, then the relation must be in third normal form.