**1NF does the following:**

❑ Eliminates repeating groups.

❑ Defines primary keys.

❑ All records must be identified uniquely with a primary key. A primary key is unique and thus no duplicate values are allowed.

All fields other than the primary key must depend on the primary key, either directly or indirectly.

❑ All fields must contain a single value.

❑ All values in each field must be of the same datatype.

❑ Create a new table to move the repeating groups from the original table.

**2NF does the following:**

❑ The table must be in 1NF.

❑ All non-key values must be fully functionally dependent on the primary key. In other words, non-key fields not completely and individually dependent on the primary key are not allowed.

❑ Partial dependencies must be removed. A partial dependency is a special type of functional

dependency that exists when a field is fully dependent on a part of a composite primary key.

*Stating the previous two points in a different way, remove fields that are independent of the primary key.*

❑ Create a new table to separate the partially dependent part of the primary key and its dependent

fields.

**3NF does the following:**

every field in a table that is not a key field must be directly dependent on the primary key.

❑ The table must be in 2NF.

❑ Eliminate transitive dependencies. A*transitive dependency* is where a field is indirectly determined by the primary key because that field is functionally dependent on a second field, where that second field is dependent on the primary key.

❑ Create a new table to contain any separated fields.

**BCNF does the following.**

❑ A table must be in 3NF.

❑ A table can have only one candidate key.

Source: *Beginning Database Design* book.