DataBase Normal Form

<https://www.databasestar.com/database-normalization/>

# NF 1

1. **Does the combination of all columns make a unique row every single time?**
2. **What field can be used to uniquely identify the row?**

# NF 2

1. **Fulfil the requirements of first normal form**
2. **Each non-key attribute must be functionally dependent on the primary key**

**Are all of the columns dependent on and specific to the primary key?**

***Functional Dependency***

**Each field that is not the primary key is determined by that primary key**, so it is specific to that record. For instance, in a database for students the entity Student could has these non-key columns: student name, fees paid, date of birth

# NF3

1. **Fulfils the requirements of second normal form**
2. **Has no transitive functional dependency**

**Every attribute that is not the primary key must depend on the primary key and the primary key only**.

***Transitive Functional Dependency***

Column A determines column B which determines column C.

For instance, Student determines the address ZIP code which determines the suburb.

We can move the ZIP code to another table, along with everything it identifies, and link to it from the student table.