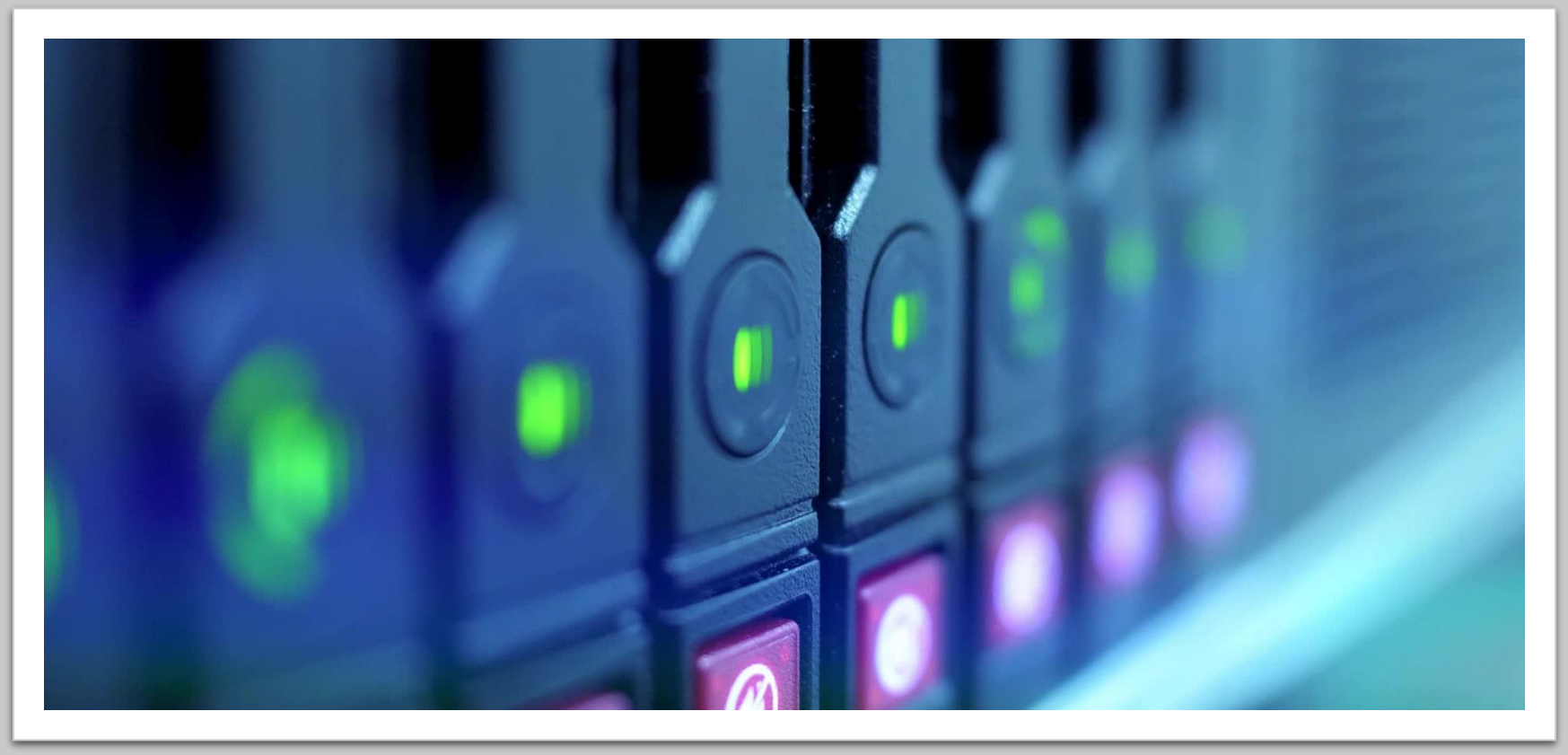

# The Three Main Database Normal Forms

# Definition of Database Normalization

There are three common forms of database normalization: 1st, 2nd, and 3rd normal forms.

There are several additional forms, such as Boyce–Codd, but I consider those advanced, and not too necessary to learn in the beginning.

The forms are progressive.

Meaning that to qualify for 3rdnormal form a table must first satisfy the rules for 2nd normal form, and 2nd normal form must adhere to those for 1st normal form.

Before we discuss the various forms and rules in detail, let’s summarize the various forms

# First Normal Form

The information is stored in a relational table and each column contains atomic values, and there are not repeating groups of columns.

# Second Normal Form

The table is in first normal form and all the columns depend on the table’s primary key.

# Third Normal Form

Third Normal Form – the table is in second normal form and all of its columns are not transitively dependent on the primary key.

# Don't Worry!

- Do not get too hung up if you don’t know what these rules mean at the moment.
- For now it’s important to understand there are three rules for database normalization which build upon each other.