

## 2. Terms

- A **super key** is a column or set of columns that ensure every row will be unique, a **candidate key** is a minimal super key (the least amount of rows), a **primary key** is a chosen candidate key, one has to be chosen when there is more than one candidate key.

## 3. Table

- The topic I chose is an employee table for the Help Desk at Marist College. The Table columns would be as following: first name, last name, birthday, CWID, year, and cellphone number, requested hours. The data types would be, as respective: string, string, date, integer, string, string (dashes in-between numbers), and integer. The only nullable type would be phone number since not everybody necessarily has a cellphone.

## 4. Rules and Examples

- **1NF Rule:** in defining columns, each set of columns must have an unique value. You cannot have a list of attributes in a column or row. All intersections need to be atomic data. For example, if you have a column for last names you cannot have a row with two last names and the rest of the rows with one last name. It is important in order to identify each set of data. **2nd Rule:** access to rows by content only. For example, rows cannot be called by "first row, second row, etc" and the same applies for columns. It is important because the information in the database will not always be organized in the same order every time. **3rd Rule:** for each table, all rows must be unique. No duplicates. For example, you cannot have two rows with the same attributes. It is important because it eliminates ambiguity.