### **Discussion Assignment**

Discuss the characteristics of 1NF, 2NF, and 3NF. As part of your discussion, you should describe how decomposition is used as part of the process to normalize a database schema.

**1st Normal Form:** All domains are indivisible, there are no repeating groups[[1]](https://paperpile.com/c/rUDphp/2Va5). To get to this form, we have to ‘decompose’ the domains into separate tables that eliminate the redundancy but do not cause any loss of data[[2]](https://paperpile.com/c/rUDphp/xnt9).

**2nd Normal Form:** Must be in 1NF already, AND must have a single attribute as its candidate key[[1]](https://paperpile.com/c/rUDphp/2Va5). Attributes must depend on parts of the candidate key, they all must depend on a single key, or all of the key.

**3rd Normal Form:** Means that there is no transitivity in the primary key relations / dependencies. Non key attributes are independent of each other[[1]](https://paperpile.com/c/rUDphp/2Va5).

**References:**

1. [Elmasri R, Navathe SB. Fundamentals of Database design. Benjamin/Cummins, Redwood City; 1994.](http://paperpile.com/b/rUDphp/2Va5)

2. [Adam McNicol. Normalisation Demonstration. Youtube; 2009.](http://paperpile.com/b/rUDphp/xnt9)