**Steve Nginyo**

1. **One-to-One (1:1)**: In a one-to-one relationship, each record in the first table corresponds to one and only one record in the second table, and vice versa. This type of relationship is not as common as the other two, but it’s used when it makes sense to separate information for clarity or performance reasons. For example, a person has one passport, and each passport is issued to one person.
2. **One-to-Many (1:N)**: This is the most common type of relationship. In a one-to-many relationship, each record in the first table (the “one” side) can relate to zero, one, or many records in the second table (the “many” side), but each record in the second table relates to exactly one record in the first table. For example, a mother can have many children, but each child has exactly one mother.
3. **Many-to-Many (M:N)**: In a many-to-many relationship, multiple records in the first table can relate to multiple records in the second table, and vice versa. This type of relationship is implemented using a junction table (also known as a bridge table, join table, map table, or link table), which consists of two foreign keys, each referencing the primary key of the related tables. For example, students and courses have a many-to-many relationship: each student can enroll in many courses, and each course can have many students.

These relationships are fundamental to the structure of relational databases and are used to ensure data integrity and consistency. They also enable complex queries and data analysis.