Primary and foreign keys:

1. What are they

A primary key is the address for where a particular set of data is stored. It is the only place that that particular set of data is actually stored. A foreign key is a reference to the primary key. It’s kind of like a map to where a particular set of data is stored. The map isn’t the actual building, it only tells you how to get to the building. The address (primary key) is like the house numbers you see in a neighborhood.

1. How are they used

The primary key is generally set upon creation of a table. It is a unique key that has not been used by any other table in the database. In MySQL you type “PRIMARY KEY” at the end of the initialization of the key to indicate that it is a primary key. Example:

PersonID int AUTO\_INCREMENT PRIMARY KEY,

The foreign key is created within the table that should reference the other table. In MySQL type “FOREIGN KEY” at the beginning of its initialization to indicate that it is a foreign key. Example:

FOREIGN KEY (PersonID) REFERENCES Persons (PersonID)

1. Why are they used

Foreign and primary keys are used to ensure data consistency. If you didn’t have foreign and primary keys you might end up with a situation where the foreign copy of a particular dataset has been edited, and the primary copy and the foreign copy end up holding different information. If you change the foreign key to only holding the address of the original copy, there is no need to worry about data inconsistency.

<https://stackhowto.com/primary-key-and-foreign-key-examples/>