1. An equi-join is essentially an inner-join. It takes two tables and it matches rows by some identifying column in each row. It only returns a result set where there is a match between the two tables based on the matching column. A full join is very similar, except the result set will include every row of both tables even if there isn't matching rows based on the foreign keys. In the example below, the tables will be identical because there is not any unmatched rows in the tables.

Equi-Join:

ID	Name	Address	ID	CustID	Qty
1	Cyndi	1500 Illinois St	1	1	20
1	Cyndi	1500 Illinois St	2	1	15
2	Jody	CSM	3	2	12

Full Join:

ID	Name	Address	ID	CustID	Qty
1	Cyndi	1500 Illinois St	1	1	20
1	Cyndi	1500 Illinois St	2	1	15
2	Jody	CSM	3	2	12

2. A left join will always display every row in the left most table and it will try and match it to the right hand table, but if it cannot, then it will only return the rows from the left hand table.

ID	Name	Address	ID	CustID	Qty
1	Cyndi	1500 Illinois St	1	1	20
1	Cyndi	1500 Illinois St	2	1	15
2	Jody	CSM	3	2	12

3. A self join may be really useful when comparing data within the same table. If you wanted to compare organizational structure in a table that contains employees for a company, you could use a self join to show which employees work for some manager and you can do this without creating multiple tables.