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Lab 1

Let's imagine that there is a database for all the athletes on the Marist Swimming and Diving team. This database includes names, class year, strokes he or she does, as well as the classes he or she are enrolled in. The database categorizes the data into information in that you can look up a swimmer and immediately see all his or her details (classes, name, stroke, etc.). For example, if you wanted to see all the swimmers who swim butterfly, the database will produce those swimmers to the user. The big difference between information and data is that data is meaningless information, for example, left/3/right/10/right is data (it has no meaning). If I were to tell you that it is directions to the store it would then be data because it has a context now. That data now can get you to the store, where before it was just a string of letters and numbers that happened to coincidentally formed words.

The hierarchical data model is a model of data much like a tree diagram. It has a root and each node has children. No nodes can share the same children however. A network data model is very similar to the hierarchical data model, but the big difference is that two nodes can share the same child. For example, in the database above, two swimmers can share the same stroke because that database is a network data model. The biggest shortcoming with both the hierarchical data model and the network data model is that if there is a stroke that no swimmer swims, that stroke doesn't exist in the database for all intents and purposes. XML is not a

database. It could be used in conjunction with excel for limited data, for example if you are ordering shirts, an excel file (XML file) would be great to see what size someone asked for, but it would not be appropriate for a information such as the database up above.