Iglika Hadjiyska
Database Management
Labouseur
January 25th, 2016
Lab 1: PostgreSQL short essay

Data vs. Information

Databases are extremely useful collectors of data and information, used in numerous situations. One common use of databases is as a organization system for libraries. A library's database would store all of the books and media that the library has currently, is ordering, or has had in the past. Information that would stored about these books and media would include data of publication, identifier of book (for the Dewey decimal system), title and author. In addition to that, the database would also store the profiles of administrators (such as the creators and maintainers and the employees) and the users (people with a library card) and information about them, such as their security permissions and library card numbers.

Databases store both data and information, although those two terms are not exactly the same. Data, loosely translated, is a compilation of raw facts, letter, symbols, numbers and anything else that could possibly be collected. Information, however, is data with context. An example of data would be the random numbers 24601. The further example of information would be the context of those numbers: together, they form the prison number of the main character of the French 17th century novel, *Les Misérables*. Information is important to databases because it makes them more efficient rather than just collectors of random, useless data.

Within the scope of the library's database, the information stored would give context to the data by including units and labels to the numbers. One specific example of the relationship

between data and information is the use of the Dewey decimal system in libraries. A piece of data, such as 142.780973 C826e, would be confusing without any knowledge of the system. However, once the rules are applied, the data is revealed to be the identifying number for the book *Existential America* by George Cotkin, which would most likely be in the philosophical section. The system used by libraries, while helpful for their employees, can often be confusing and daunting for users. As such, one way libraries given context to data is by labeling sections by the number range that corresponds to them. An example would be labeling the arts section as the 700s while the section about religions would be label as the 200s. This would help users orient themselves when they use the identifying number they received after searching for the book they wanted.

Databases help numerous organizations, most specifically libraries, with organizing data and making it understandable by giving it context, making it information. When creating and maintaining databases, it is imperative that all data is given context through units and labels to make it understandable for the users.