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Database Systems-Lab1

Data vs. Information

The first database that comes to mind for me if the NSA's Utah facility. There was a lot of controversy around the construction and implementation of this data center. The main questions were why does the NSA need such an insanely large data storage facility and what information of ours are they collecting. All the information contained in their facility is classified. I know that the amount of data constantly being brought it is unfathomable. The data is turned into information giving it a more use, purpose and organization. An example is the NSA may have a person on their watch list. Not only is data collected for this person it is also collected with every single person they have been in contact with. They sift through this data and turn it into information that can determine this particular individual's motives or actions. Once the data is given context it no longer is just numbers, words, or times. It is information that may have an actual use. This is what makes it valuable information. The NSA may use what they have gathered to stop an unfortunate terrorist attack or anything of that nature.

Hierarchical and Network Models

A hierarchical database model organizes its data in a tree structure. Data would be stored as records which would have links to other records. The records would hold a collection of fields that contained one single value. Each record would be labeled to define the fields it contained. The network model is a "graph-oriented, physical-level" model. The network model is similar to the hierarchical model, both are object oriented models. The network model allows each record to have multiple parent and child records while the hierarchical model only allows one parent record to have multiple child records. The hierarchical model was the first relational database model used by IBM starting in the 1960's. With the emergence of new technologies and software in the 80's and 90's their uses became obsolete. They are still in use today though. Many Information management systems still use the hierarchical and network structure. The system is

used to transaction processing capabilities so many banks implement this structure for their atm machines because it is extremely reliable.