Robert Coords

Database Management

Professor Labouseur

<u>Short Essay: Data Models</u>

The hierarchical and network pre-relational data models were two of the first data models developed. The hierarchical model is a tree-based model that did not have logical data independence. The network model improved on the hierarchical model. The network model was a graph-based model that had logical data independence. The relational data model was developed later and improved on both of these models. For example, the hierarchical model and network models did not support high-level query languages. The relational model does, as can be seen through its continued support for SQL. The earlier models inability to support a query language made accessing data within these models significantly more challenging. Additionally, the relational database organized data into tables. Data stored in a table can be retrieved faster than data stored in a graph or tree. I believe XML is a good model for data storage because XML is used to easily transport data over the Internet. Using XML as a data storage platform might help decrease the data retrieval time, while further simplifying the process of data transfer.