

Short Essays:

Data vs. Information –

A database stores data which an organization views as important for piecing together and uncovering information. In a sales environment, some of the elements of data would include unique identification numbers for the sales associates, the customers, and the items or services sold. While individual sales and ID numbers may seem like mundane or potentially useless “information”, that is because it is not information it is data. Only when data is put together and organized are patterns able to be seen from the information formed. An organization may take the data of items sold and put that together to find which products are providing the most income, which clients or markets they should focus on, and much more information.

Data Models –

Hierarchical data models organize stored data in a downward branching format, where the top of the tree is the overall project or file. The branches extending from the root node are categorized into records or sub sections of the file, and the branches from these sub sections are fields of the records which further the organization. The network model is very similar to the hierarchical where it is broken down into a root and child node type structure, however the branch nodes in the network model can share edges by having multiple nodes higher in the model each pointing to a node lower in the model. In a relational model, entities are connected via unique keys which store data in rows and columns allowing for a smooth relation between tables. The hierarchical and network models were difficult to manage and had no way of describing the relation between nodes.

