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Lab 1

Essay 1: Data vs Information

Although they may seem similar at first, data and information are not the same thing. Data is a collection of unorganized facts. Information is the context that data can provide. An example of this can be found in the popular football game, Madden. Each player in Madden is assigned values in various categories, such as speed, acceleration, strength and so on. The data that they collect is based on how well that player has performed in real life. Once a player is assigned values in each category, you can begin to assess the player's skill by looking at what position he plays and which skills are pertinent to that position. Information can then be extrapolated from the original data such as a player's overall rating, his ability to perform while playing the game and the team's overall rating that the player is on. This information is extremely valuable to the person playing the video game. The information, such as the overall team ratings or individual player ratings, allows the user to choose which team will give them the best chance to win. Without the original data, the user would have no sense as to which team to play as because there would be no information telling the user which team is better.

Essay 2: Data Models

The hierarchical model is an earlier data model that allows the user to store data in a hierarchical structure. In this structure, files are made up of records, which are made up of fields. Each field is made up of data. In this model, records can contain

many fields, whereas each field can only be linked to one record. This is where the network model differs from the hierarchical model. The network model stores data the same way, however it allows for each field to have multiple parent records. These models both have shortcomings to the relational model. If you need to alter the data in these two models, you may have to find every occurrence of the data that needs changing. In the relational model, there is no need for multiple occurrences of data. The relational model uses stored values in tables in order to store the data. The data can be referenced between tables by using keys, this way there is no need to link data in a structure.