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Database Management

Due January 27th, 2016

Lab1

### Essay 1: (Data vs. Information)

Data and information are two very different objects. If for example we examine the Amazon database, there are many different forms of data that are stored within that database. The database stores various data such as what you clicked on a given page or what keywords you typed into the search bar. This “data” seems meaningless without a given context. That is precisely what “data” is, data is a collection of things that has no meaning and no given structure. Once this data is taken and analyzed in some manner (data mining), it is converted into information, useful information. The collection of key terms that a given user had typed into a search bar can be used as information for the recommended items or searches the next time they log in. Information is data that has structure and a meaning. The value of this data, once given a context, is now information, this information has a great deal of value to the company depending on how they utilize it. Data alone can have little to no value or meaning what so ever, its as if you are looking at a completely foreign language. However, once you are given a context (in this metaphor, a translator) you are now able to look at it as if it was your own native language, giving the information a much greater value to you or the company as a whole.

### Essay 2: (Data Models)

Data models are a very important part of managing and working within a database. Without these models developers and DBAs would be unable to communicate in an orderly and effective fashion. A hierarchical model allowed for one to many relationships to be represented.

This was very efficient for the early mainframes, as databases grew in complexity there was a need to display and represent more complex relationships, thus came about the network pre-relational data model. This model allowed for many to many relationships, implying that “children” could have more than one parent (where as in hierarchical models you could only have one parent). Then there became a need for an even more complex model system. This would be known as relational model. This model would allow for multiple tables to have relationships amongst one another. XML is a good way to model data storage, it allows the database developer to see what relationships are necessary for the system.

PGADMIN installed on my computer:

