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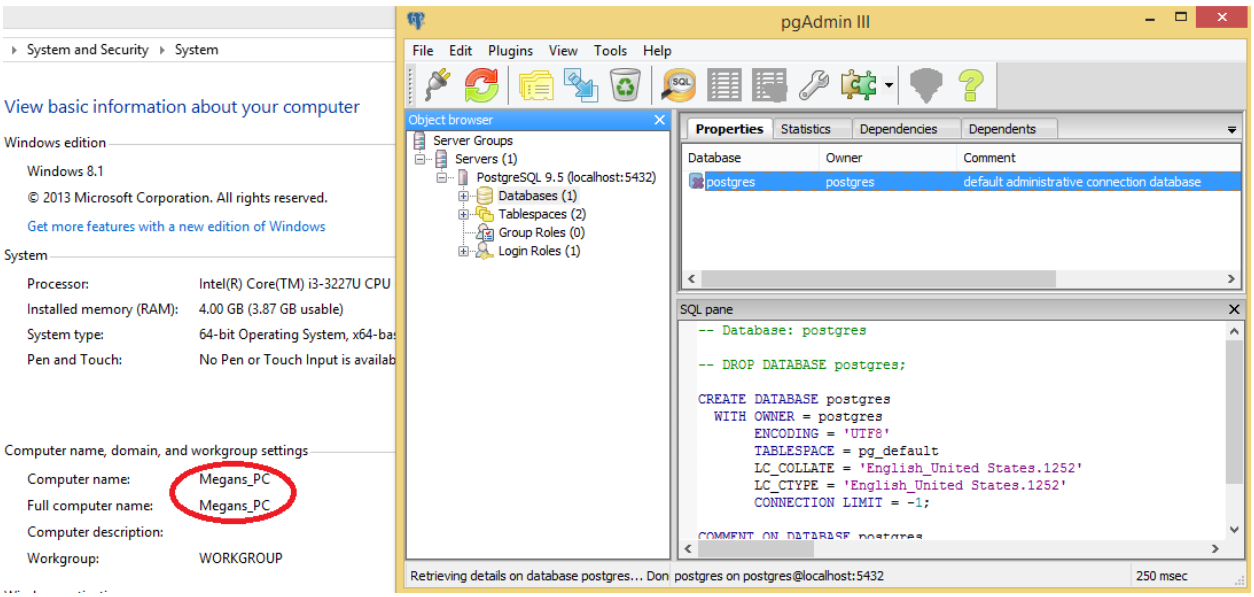
Lab1: PostgreSQL

Screenshot:



Short essay 1:

An example of a database that is in use today would be one for a gym such as Planet Fitness; the database would be of their members. The elements of data that would be stored in their database would be the members name, their birthday, they date they applied for the membership, a membership ID, their weight, how long they have been a member for, their phone number, their email, and their home address. The database will take in this data and organize it into information by putting each piece of data into their designated field. For example, the members name would go into the field named "Members Name," and their birthday would go under the field labeled "Birthday," and so on. Without context or organization, it can be difficult to understand what the meaning of data that is put in front of us. For example, if you were given a piece of paper that had the data "John Doe. January 26, 1990. 150," you wouldn't know what any of it meant. However, if you organize it and give it context, it becomes information that is easier to understand. So instead you would have "Member's name: John Doe. DOB: January 26, 1990. Weight: 150 lbs.," where you can now tell

that it is information about a member. Once data is given context, it gives a perspective and value to the user. It allows the user to understand the information that is being presented to them. With this context given to the data it becomes valuable information that can be used and understood by the gym staff, who can now verify gym members and their information. This turns otherwise meaningless data into important and valued information.

Short essay 2:

The hierarchical data model is a database model that organizes the data into a tree-like structure. The data is stored into records which are connected to each other with lines called links. A record is a collection of fields where each field has only one value. The network pre-relational data model expands on the hierarchial data model. It organizes the data using records and sets. A record is the same as the hierarchy model. A set can contain multiple values to one record. The shortcomings of these models, in relation to the relational model, are the fact that they were incapable of processing high-level query language, making these data models unreliable. eXtensible Modeling Language, XML, is a large collection of documents. According to the text this can serve as a database, but the process of gathering the information is different from that of the relational model. I think that because XML is a large collection of documents it can be an inefficient way to look up information and because of that, the documents could get disorganized. However, XML does have some positive traits because it simplifies data sharing, data transport, and data availability.