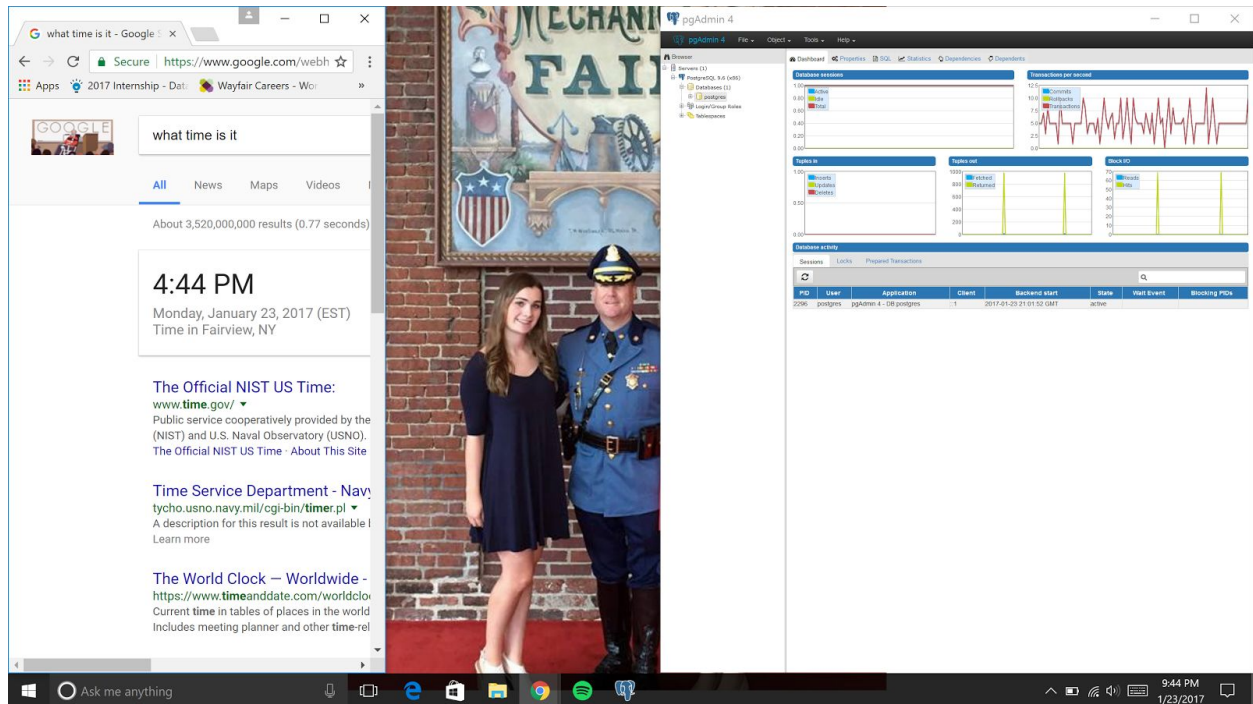


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Database Systems
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Lab One



There I am! I also never set my timezone back after returning from Ireland, so this is clearly my laptop.

Data vs. Information

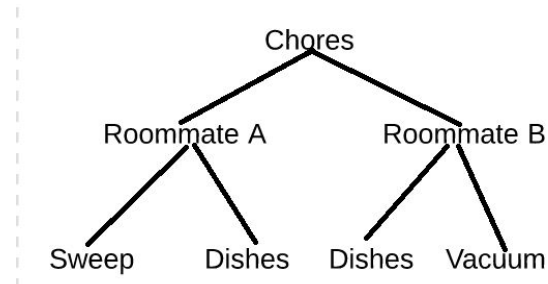
A database at my former internship contained information on sediment samples taken from the greater Boston area. Data included sample ID, longitude sample was taken, latitude, date taken, photos of samples, and other information regarding the scientific testing of the sample. Tracking certain areas over a long period of time allowed the scientists to track the progress of efforts to help the environment. The database provides this information, finding patterns and trends in the data collected.

In a world run by big data, meaningless data that doesn't actually give information is bad(better word). In class, the data you originally had written on the board was meaningless until you revealed what the numbers actually were. If the database I worked with didn't clearly explain the meaning of each element, there would have been no way for me make sense of the data or be able to display it properly online for researches to review. The database would just be full of random, useless data. Once data is given context and can provide information, this information becomes invaluable.

Data Models

Hierarchical:

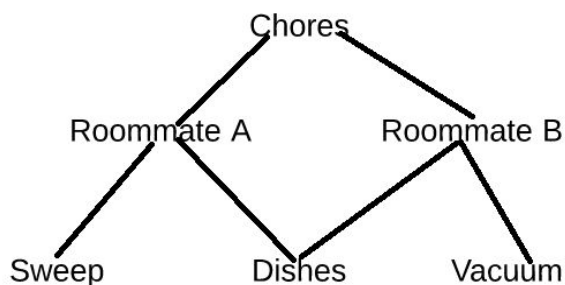
This model follows a hierarchical flow, as the name indicates. Shortcomings for this model include that there can be redundancy and there is not always a place to display all of the data. Ex.



Dishes are listed twice, while laundry, another chore, does not exist on the diagram because neither roommate has yet done this.

Network Model:

The network pre-relational data model eliminates the problem of redundancy.



While the redundancy of dishes has been taken care of, there is still not a place to put laundry.

XML:

I didn't know much about using XML as a model for data storage so I looked up [this thread](#).

I don't think XML is a good model for data storage, even though it can be okay for small amounts of data storage. We want relational models not only to store and retrieve data efficiently. Manipulating data becomes more complicated with XML.