Anders Lykkehoy
September 3, 2017
Lab 1

Short essays:

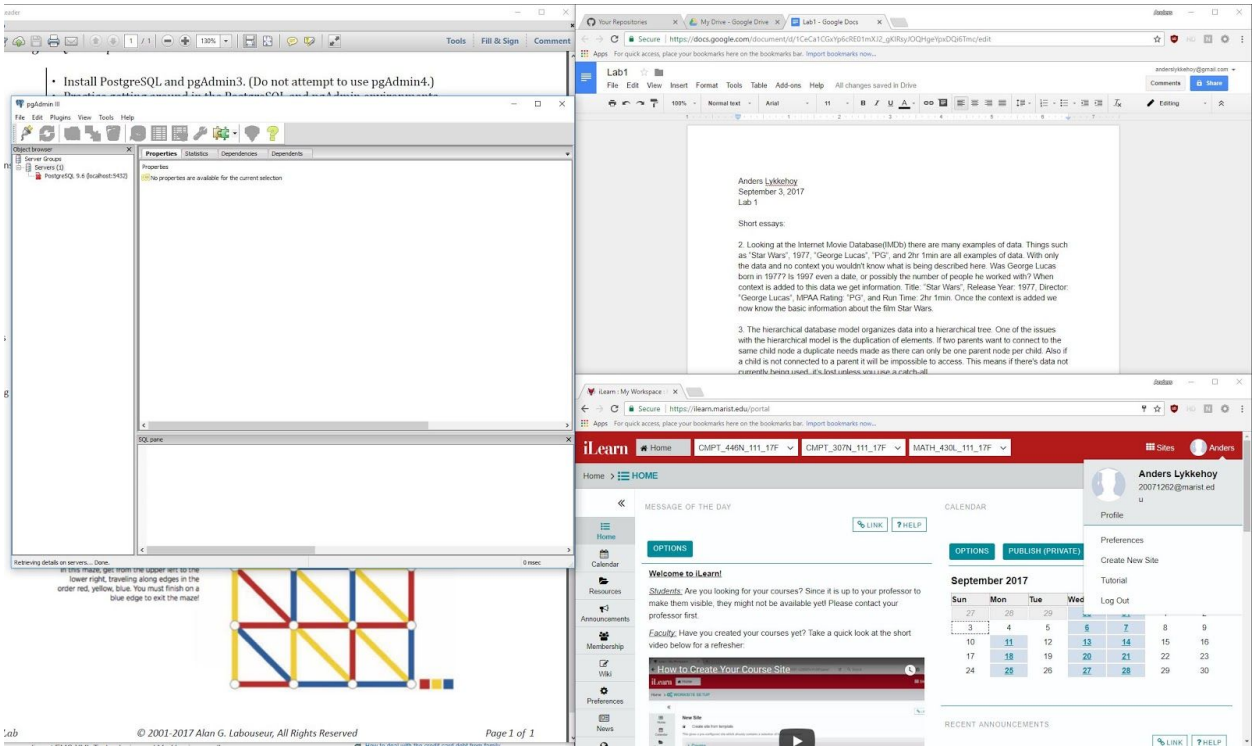
2. Looking at the Internet Movie Database(IMDb) there are many examples of data. Things such as “Star Wars”, 1977, “George Lucas”, “PG”, and 2hr 1min are all examples of data. With only the data and no context you wouldn't know what is being described here. Was George Lucas born in 1977? Is 1977 even a date, or possibly the number of people he worked with? When context is added to this data we get information. Title: “Star Wars”, Release Year: 1977, Director: “George Lucas”, MPAA Rating: “PG”, and Run Time: 2hr 1min. Once the context is added we now know the basic information about the film Star Wars.

3. The hierarchical database model organizes data into a hierarchical tree. One of the issues with the hierarchical model is the duplication of elements. If two parents want to connect to the same child node a duplicate needs made as there can only be one parent node per child. Also if a child is not connected to a parent it will be impossible to access. This means if there's data not currently being used, it’s lost unless you use a catch-all.

A Relational model does not have these issues. If two elements want to reference the same element in another table that is perfectly acceptable, reducing duplicate data. If data in one table is not referenced by another table that data is still accessible.

The Network database model is very similar to the hierarchical one with the major exception being child nodes may have many parents. This solves one of the major problems of the hierarchical model, the need for duplication, but does not solve the problem of all data needing a parent. Once again if a child is not connected to at least one parent it will be impossible to access.

Considering all this, XML seems like a good way to represent hierarchical and network models. Unfortunately it does not solve the issue of referencing a child with no parent node.


Install PostgreSQL and pgAdmin3. (Do not attempt to use pgAdmin4.)
pgAdmin III
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How to Create Your Course Site
September 2017
Anders Lykkehoy
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Create New Site
Tutorial
Log Out
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Lab
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