Nmasichi Chukwuemeka

CSC 398

Dr Jones

10/11/2020

First week Blog Post

This week, I learned about relational databases and how it is different from other databases. In a relational database, we store all our data in the form of tables. The heart of a relational database is based on how different pieces in the table relate to each other. In a relational database, all the values in rows are characteristics of a particular thing and all the values in a column have their types. They can be used for querying and for summarizing data. They also let us have constraints in the data which makes our data consistent.

When we create a table in a database, we give it a name, we also have the names and types of the columns and they are called the table headers. The body of the table is the rows and columns and they all have a value.

Database also has aggregation, which is a database formula that will summarize things in a row and perform an operation. Some of these are Count, Average, Max, Min, Sum, and just as their names are, they are used for counting, getting average, sum etc of values in the rows and columns of databases.

I also learned that in a database table, when there are multiple answers to a question, we do not put them in one row separated by commas. Rather we put them in multiple rows. For instance, if there is a table that has a specie of animals and a particular animal eats multiple food, we cannot put those different foods in one row separated by commas, rather we have them in multiple rows. There are different reasons we do not do this. For one, if we want to put all the different values in one row separated by commas, we will not know how many values in advance that we will get. Also, we will not be able to use aggregations on them if we do this.

I have also learned that when our code asks for information from our database, it does this in the form of a query, and the database sends a reply in the form of the table. An example of a query we can run is

SELECT food

FROM diet

WHERE species = ‘monkey’

In the above code, SELECT got the column we wanted , while FROM got the table. Then Species was the restriction which shows what in particular we wanted.

This week, I also learned about the command line and covered the first chapter of Conquering the command line. I understood that to do this I had to first get access to the school;s VPN which I did. Also, I read and understood the different commands for different things in Linux. For instance, the $pwd is used to know where you are in a directory. The ls command is used to see what file or directory are in your current folder. The $ls - a command can be used to see both hidden and visible files and the -l flag will give a more detailed view of files and directories. Cd means to change directory and cd. Takes you to the former directory before your current directory. While cd… takes you to the outermost directory.

There are several other commands I learned, and I realized that it is not just about learning these commands. The more I use them, the better I get at them