IT 697 SQL Module Four Reflection Journal

Michael Surdek

Southern New Hampshire University

The fourth week of this experiential learning course was something a little different as I was on a family vacation in Mexico until late last night. Although much of my time was spent on the beach or golfing, I found many opportunities to devote to my schoolwork and I was even able to spend more hours on my SQL learning experience than I had during any other week yet. I found myself spending portions of five days this week on SQL-related activities which amounted to nine total hours. I plan to reach and surpass the recommended ten hours per week, in order to get the most out of this experience, and I think this week was evidence that I am on the right track. Throughout the first four weeks, I have built up a plethora of ideas and resources for how I can spend time learning about SQL and accomplishing the objectives of this experience. There is no shortage of information out there these days, and it seems as though each new resource I utilize points me in the direction of another that I can add to my list for the coming weeks. The tasks that I performed this week included reading an educational article, exploring multiple youtube and online tutorials on the GROUP BY clause, writing SQL queries for self-practice and the discussion board, and listening to two podcasts which have proven to become one of my preferred learning methods.

I began the week by reading the article “The New Languages of Business: Python, SQL, R” from Columbia professor Mattan Griffel. Griffel discusses the changing landscape of the business world and how the boundaries between business users and programmers are blurring. Along these lines, he states, “while it’s sometimes argued that people in business-oriented roles don’t need to know technical skills since they can outsource programming to a development team, this is an outdated and dangerous way of thinking.” Griffel provides two main arguments that all business users “need to learn how technical concepts apply to business uses” and that individuals with even basic programming skills are more valuable in business-oriented roles. The recommendations of the article are geared towards business schools and MBA programs regarding how to programming-focused courses and concepts. The primary options appear to be creating technical tracks or incorporating programming courses into the core requirements. Griffel claims there is a misconception that “it’s easier to teach technical people business concepts than it is for business people to learn technical concepts.” He says his direct experience has shown otherwise and that “students have no problem picking up highly technical skills when it’s taught in an interesting and relevant way.” This article and Griffel’s claims about the relevance of programming for business users is important to me because I am currently pursuing a technical degree in Data Analytics, but I do hope to eventually be employed in a business-oriented role rather than one more on the IT side. My undergraduate studies were in business and I believe that if the future trends in direction that Griffel is expecting, my combination of degrees will give me a leg up over individuals who have studied either business or programming, but not both.

The next couple of days of my learning experience consisted of exploring the GROUP BY clause and using my practice in this week’s course discussion board. There were a few youtube tutorials posted in the module environment, and I found some that expanded on those as well. I also read through the web tutorials from dofactory, w3schools, and techonthenet. I was not sure if I would find one particular website that I would prefer to the others, but through the first four weeks of the course I have continued to use each of these websites to learn about the different SQL clauses. Even though they generally provide close to the same information, there are subtle differences which help me learn the nuances, and reading through the information multiple times reinforces it in my head, which I believe has benefitted me when I have taken to practice on my own. To create and execute my own queries for the discussion board, I created an imaginary situation that could apply to the animal-related tables we are using in APEX Oracle. I pretended that I had 3 pets that needed to be taken to an animal center while I was on vacation, and that I had a few preferences that I could incorporate into my queries to guide my results and therefore my decision. In my discussion post I was able to use the GROUP BY clause with the aggregate function SUM, the WHERE clause with a Boolean operator, and I even included the HAVING clause into my final query because I came across it in the tutorials and I wanted to give it a try myself. The HAVING clause is one that goes hand-in-hand with the GROUP BY clause, and I can picture many situations where it is necessary to filter for certain rows based on the aggregate results *after* executing the GROUP BY clause. This is something I was thrilled to learn and to be able to execute on my own this week, as I believe it will be a frequent occurrence as I go deeper into my learning experience and professional endeavors.

The last main activity I performed this week for my learning experience was continuing to listen to podcasts that cover SQL topics. I listened to two episodes from back to back weeks in 2016 of the SQL Data Partners Podcast. Both podcasts were conversations between the host and data professionals that covered the topics of database design and database automation. Database design is a complex topic that I am familiar with from my prior Enterprise Data Management course and from activities I undertook earlier in this learning experience. In the podcast they discussed the process of collaborating with business stakeholders to create conceptual and logical data models. This interests me because of the fact that this reiterative process is both an art and a science. I believe that listening to this podcast will help me with my intended project of turning company requirements into a database schema. The second podcast about database automation was a little more over my head than I expected, but I learned about common database elements that can be automated, such as best practices and scheduling, and how someone could get started with doing so. The data professional in this podcast mentioned a presentation of his called “Building Perfect SQL Servers, Every Time” which I plan to watch for my learning experience next week. This is just another example of how I mentioned in the opening paragraph that each resource is leading me to more and more. This is an exciting thing about a mostly self-learning experience. I enjoy having control of how I spend my time learning and the ability to dive deeper into particular paths that interest me.

Finally, my learning experience, and the podcast listening in particular, gave me another idea for a project I can undertake that will demonstrate the SQL skills and knowledge that I have picked up this semester. From what I now understand, one of SQL’s main purposes is to create a system that can store complex data and thus be used to turn that data into outputs such as reports and recommendations. One set of data that I have kept track of consistently for the last 10 years or so is fitness data. I keep track of things such as weightlifting and cardio exercise metrics. In fitness, creating a plan is essential, and I have always wished to be able to use my data to help me create a fitness plan, whether it’s for a certain day, week, month, or any time period. Now that I have learned a little about SQL, I believe I could create a system that could store my fitness data. With this system in combination with my preferences and requirements for how often I should perform certain exercises, I could draw direct reports and recommendations that might help create my optimal plan. For example, if I wish to go for a run once a week and I have not gone for a run in 10 days, my system would recommend that I go for a run. If I also wish to train my back and biceps every four days and I have not for 5 days, my system would weigh my preferences in order to provide the optimal recommendation for that given day. The data professional in the second podcast I listened to this week said, “the best way to learn the language is to find something you need to do and do it.” Automating a fitness plan is something I have hoped to do for quite some time, and I now believe I might be able to use SQL to do that. Whether I am able to or not, giving it a try will certainly help me along my learning experience.

Project/Coursework Tracker

* Company requirements -> database schema
  + Started in week 4 with the database design podcast
* Live scoreboard/rankings of some kind
  + Not started
* Fitness plan recommendations
  + Planning to start in week 5