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CPSC 498

CAPSTONE Conclusion Paper

My name is Kyle Peterson, and my project was my Qookbook app, an app which functions as an offline cookbook. At the start of this project, I was honestly a bit overwhelmed, and a bit ignorant towards the amount of work the project would require. Even after being told during the first few class meetings and being told that a student should invest at least three times the amount of credit hours in work hours per week, the amount of work needed was considerably higher than what I expected. This, compounded with the time needed for other course workloads and studying, created a very busy schedule during which some weeks I felt I needed to focus more on other courses than this project. Besides time management, another key component towards the difficulty of this project was the use of newer, unfamiliar technology.

One of the biggest hurdles of this project was the medium upon which the app was built. Having zero experience in building an android app, choosing android as my building platform was a monumental decision towards the complexity of my project. Much of my time during early weeks was spent doing research about the best ways to achieve my goals. Taking CNU’s Android Development course definitely helped during the early weeks in learning how to develop simple apps and frameworks, yet the knowledge I needed early on would be taught later in the semester, leading to me having to learn many of the aspects of the programming through secondhand sources such as YouTube tutorials, programming forums, and Android API’s.

The second technology I used and attempted to integrate was the use of web scraping through the use of the web crawler Scrapy, intending to use it as a way of gathering recipe data from websites. Setup was easy, but problems stared relatively early on when it came to actually receiving the data. Many times I would receive limited information to none at all regarding recipe information, and setting up information sorting for the multitude of recipe websites was an infeasible goal for a single programmer. Having half of a recipe’s ingredients or directions would be useless, and more problems arose when I tried to transfer the information to the third hurdle, my SQL database.

Having already had database construction knowledge and database usage experience, I did not expect the utilization of PHP in my project to cause as much trouble as it did. My plans were to populate the database with recipe information, such as name, ingredients, and directions, taken from the Scrapy information. The transferring of this information proved problematic, as the transferring process was more complicated than I thought it would be. In the end, I had to work around using web scraping, dropping it from my processes altogether. I followed up by filling out the database with information, with the intent of using a program called AceQL to transfer the SQL database into the android app. A lot of time was spent attempting to properly process and transfer the database into the android app, but by this point there was not much time left in the semester. I had to either risk spending more time to try to potentially get the database link worked, or do most all of my work within the confines of Android Studio, which is what I ended up doing.

In the end, my project ended up different from how I originally planned. At the start, I wanted an app which functioned similar to other cookbook apps, yet as a final result I’m happy with what I made. Once downloaded, the app can work entirely offline, which some of the other apps cannot do, so as user can access whatever recipes I’ve put in the app wherever they are, regardless of connectivity status. I may have been able to reach all my goals had this been the only class I was involved in during the semester, or if I had a partner to split the workload, but in the end I feel like the learning process of this course definitely helped understand the experience of developing a professional project. Having a much better understanding of time, I would probably try something different or at least approach the problem differently in terms of technology, but I was happy with the result I achieved.9