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Project 3 Final Report

We followed through on our original intention of using food data in an application. The final application did not implement all we imagined, but it was successful. We overreached our time scale in the planning stage. However our app successfully integrated a functioning GUI with XML based data. Since the purpose of the project was to learn to work within android and XML, I believe we met the requirements. We can show info for different types of food on demand based on user queries. We implemented a simple XML search engine to accomplish this.

In the future if we continued with development we would like to allow more complex search queries based on fields other than the name. We would also like to complete the idea of a progress tracker. We realized that in order to track eating habits we would need to use a separate database in addition to the XML data we were dealing with. The complexity of this path was too much under our time constraints. Instead we focused on the search aspect of our app.

We faced some interesting problems while developing the application. Our searching code had performance issues at first. The issue was that we were loading each object separately into memory. We had too much data for this to be feasible. We modified the code so that it would examine each item and only load it into an object if it passed to query. We also front loaded the performance intensive XML operations. When the application starts it processes all of the XML.

We learned about the performance issues involved with processing large amounts of data. Our group learned how to build android applications and use android's testing framework. We saw the advantages of test driven development. When requirements are formalised before development, its clear when progress is made and what still needs to be done. Test driven development forces you to think carefully about the requirements and interactions between the objects in your program.

We split work equally. Everyone did their part.