I chose to do the Student Grades as my final application for CP212. The reason I chose to do this project is twofold; this type of application mimics many real-world applications that I will be exposed to and work with. There will be many situations in which I will have to retrieve data from a database and format it in an acceptable manner, seeing as I’m currently a student this type of project is very applicable to my day-to-day life. The second reason is that this project allows me to test my skills and knowledge of Excel, VBA and SQL while still providing me with a controlled environment that builds upon the course concepts covered.

This application queries an Access database to retrieve information about Students, their performance and course data that the user can navigate through and observe. It also displays data from the database in Excel worksheets which is a familiar and widely recognized format that people are used to. Furthermore, this application is capable of accessing different types of data files such as .dat and .txt files in addition to SQL databases to retrieve information. Moreover, this project creates a custom histogram chart to display the course data in an organized and professional manner. This application also writes data from different files to the Access database, and it also utilizes a large amount of error handling and conditional logic to ensure a pleasant user experience. Finally this application connects between different Microsoft Office products by creating a custom .docx Word file to display information about a course as well as display its associated histogram to create a full report for the user.

All in all this application has a wide variety of extremely useful and valuable tools that most people in both the business world and in their day-to-day lives are familiar with. This project is very useful for educational institutions to efficiently query their user data and present it in a logical manner and create full reports with it. It also provides an excellent base for which other administrative-type applications can be built from.

The project creates a query to an Access database to get the number of students that live in St. Jacobs. This is the SQL code to retrieve the data.

SELECT COUNT(StudentID) As NumberOfStudents

FROM Students

WHERE City = ‘St.Jacobs’