**Introduction**

The purpose of this project was to design a church financial record keeping software. This software is to be used by the church secretary to record different donations made to the church by members of the church. It should also print custom reports depending on the needs of the secretary and members. This report is divided into three sections describe the process we went through as a team during the development of the church financial record keeping software. Section one describes the problems and challenges we were faced with as a team during the development process, section two describes what we would do differently and finally section three concludes by summarizing the entire development process and valuable lessons we learnt, both individually and as a team.

**1. Challenges**

This section describes some of the challenges we were faced with during the development of the project.

* 1. **Functional issues**

One of the major problems we had was creating a grid to display the records that were already in the data in the database whenever the view tab was clicked. The system could not pull the records from the database to display in the grid. Upon thorough investigation, research, and code review, we discovered that our sql statement was wrong. We made the changes and the problem was solved.

The second problem we had was generating reports. This was one of the main reasons why our client wanted this system. To be able to print customized reports. We had to spend a lot of time researching on it since it was a core function required by our client. We tried different report generating software like crystal reports, which was suggested by our client but we eventually settled on acrobat reader since most members are familiar with it as opposed to crystal reports.

* 1. **Nonfunctional issues**

Time was a problem during the development process. We not only had this class but other classes as well which needed our time too. Another issue we had with regards to time was getting all the team members in the same room at the same time for meetings and reviews. We all have different schedules and live in different places. After discussing this, it was agreed that we all needed to make sacrifices in order achieve our goal in time.

* 1. **Known problems.**

Although we the application is working and is ready for deployment, there are some problems that were not able to tackle as a team. One of the problems is the system is not issuing an alert message letting the user know that an insert into the database is successful. This we suspect is a problem with Ajax and there is nothing we can do about it for now. Another problem the system has its inability to implement the calendar function in Mozilla. This is a browser that we are not in a position to sort right now. Finally, the system has a redirection error in the donations page when inserting an envelope number not in the database. This is a problem we could sort were it not for the time constraints we had. Existing record validation is also required, a problem we could sort if we had enough time on our side.

**2. What could be done?**

Time was a major issue during the development of the system. Because of lack of enough time, we were unable to accomplish some tasks like the ones mentioned in the previous section. If we had more time we would work on these problems. We would also enhance the system further with rich features like automated email sending options and make the system more accessible by deploying it on a server such that our client do not have to be in her office or home computer to access the system.

If were to start over, we would not change anything as far as the process is concerned. This is because our process worked well for us especially due to the fact that our client had a system she was already using but was lacking in certain features, making requirements clearly known. This made our work easier.

This project has taught us many lessons. Because of this project we were able to learn about certain languages and development environments like JQuery, JavaScript, and Ajax. We also learned more about databases and how the backend of an application communicates with the front. This project also taught us the importance of configuration management in software engineering. For some of members of the group, it was the first time hearing and learning some tools used in configuration management like Github. Most importantly, we learned the importance of team work and being a team player. This is because in the industry, we are going to work with other people, it’s important to know how to relate, communicate, and play your role in a team, it keeps things moving forward.

**3. Summary**

There are a lot of myths as far as software is concerned, for example that software is only code. This project gave us a glimpse of what really happens in the industry as far as software engineering is concerned and what is expected of us software engineers. It has been a good learning experience for us. Finally, we would like to thank our professor, Prof Stringfellow for her guidance and mentorship in this course.