**IPRO 313 Advanced Systems Applied to Student Loan Rehabilitation Processes**

**What is Loan Rehabilitation?**
The Loan Rehabilitation Program gives student borrowers who have defaulted on loans the opportunity to have those loans removed from default and become eligible for student financial aid.

**How does it work?**
The borrower must have made 12 consecutive, voluntary, agreed-upon monthly payments. If the Department of Education is getting money to pay back your loan by taking some of your tax refund money, or taking money out of your paycheck (garnishing wages) or other judgments, then the borrower is not eligible for the loan rehabilitation because these payments are not voluntary.

The monthly payment must have been made on a timely basis. This is defined as payment within 15 days of the due date.

The borrower must agree to pay a fee of up to 18.5 percent of the unpaid principal and accrued interest. These costs are added to the unpaid balance at the time the loan or loans are sold to the lender. This fee is approximately the same as the collection cost that are now being paid on the defaulted loan. After the loan is rehabilitated all national credit bureaus will be notified that the loan is no longer in default.

**Who is FMS?**
Financial Management Systems (FMS) founded in 1990, provides operations and consulting services to government agencies and selected private sector organizations.

They are a 90-person strong small business firm headquartered in Schaumburg, Illinois.

FMS provides customer service operations, debt collection, outreach and case management, payment error reduction, due diligence reviews, and program management services to our clients.

**Problems facing FMS?**
Rapid Growth - FMS is experiencing significant growth, to the point where it is out matching their current capabilities.

Failing Infrastructure - FMS does not have the systemic structures in place to operate efficiently, and with the current growth that inefficiency is having a significant negative impact.

Insufficient Software - One of their problems stem from relying on generalized software solutions from 3rd party developers that insufficiently meet their needs and require costly modifications and updates.

**What we took on.**
Given the situation at FMS, the group decided with consultation of FMS that addressing the above issues with respect to their student loan rehabilitation division would have the most impact on their business. According to FMS, that division is currently where they have a competitive edge, and where they will most need a competitive edge in the future.

We decided to design and develop a comprehensive data collection and management system that would fill in the gaps of their current processes and allow for easy adaptation. We needed to design the system in such a way as to be compatible with existing infrastructure and conform to existing work flow.

**Internal Obstacles**
Technical Skill – The team was unfamiliar with many of the relevant technologies. This created problems with effectively implementing the design.

Work Experience – Most of the team was unaccustomed to working in environments similar to what was experienced during this IPRO.

Commute to FMS – A substantial difficulty was the reality that FMS is located in Schaumburg where frequent visits, while probably beneficial, were largely impractical.

**External Obstacles**
Communication – We faced several difficulties during the project when it came to our communications with FMS, from unresponsive email, and in-person availability of stakeholders in the company.

Project Ambiguity – With this project we often found great difficulty with trying to collect requirement details. Also we experienced changing requirements on items that were previously approved.

**Solution**
Our primary requirements for this project were to be compatible with existing infrastructure, to allow for easy alteration and maintain a history of what changes occur in the system, and create an easy medium for the accessing of standard reports to assist in effective collector activities.

In our design we addressed the compatibility concern by creating a system independent from the current infrastructure. This allowed us to mitigate the risk of deploying a new system live without sufficient time for problems to arise and be addressed. In order to do this we needed to have access to information stored in the existing systems, therefore we through discussion with FMS, decided to have an export functionality build in to their existing software to pass on necessary data to our system for processing.

To address the history concern, we designed a data model, which is flexible enough to except and track changes to data and the structures of individual tables.

For the reporting requirement, we decided on using technologies that FMS expressed comfort and familiarity with. In this case that technology was ASP .NET and MSSQL Server. With these technologies we were able to utilize integrated reporting services found in MSSQL Server to create the reports that FMS required. As well as allowing for trivial modification to the reporting functionality to be made, if necessary.

**Accomplishments**
- Design Document
- Data Model
- Software Architecture

**Team Members**
Muhammad Atta    Jean Bordelon
Nathan Johnston   Martin C. Krol
Jong Park         Sourabh Sethi
Robert St. Clair  Rahul Tayal