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Fast Enterprises Internship

**Introduction**

Over the summer I worked as an Implementation Intern for Fast Enterprises at the Department of Licensing (DOL) for Washington State in Olympia, WA. Fast is a software development company that builds and implements software for city or state governments. They offer options to governments to upgrade either their current tax or DOL software. Fast has a development team, based in Denver, that develops their primary software, while the rest of the company’s employees are responsible for implementing that software at locations that have purchased Fast products. Implementing the software is where the largest portion of work takes place.

**Position**

I worked as an Implementation Intern, which is a simpler version of the full-time position “Implementation Consultant (IC).” ICs handle the day-to-day development of implementing Fast’s software. About half of development is done with configuration inside of the implemented software the government employees will end up using. For the other half of development, ICs use VB.NET and SQL to create necessary functionality. VB.NET is primarily used to transfer data across the platform, since the software is rooted in a web browser. SQL, as expected, is used to grab the data that is being moved around.

As an Implementation Intern, I handled most of the tasks expected of full-time employees. However, instead of being assigned a more comprehensive piece of development, I was responsible for sections of larger development projects.

**Learning Objectives**

My primary learning objective was to establish a thorough experience of working and developing software in a professional setting. Secondary learning objectives for this internship were to advance various, but not specific, technical, communication, and team-based development skills.

**What I Did**

My main development work for the Washington DOL was done for the Issuance and Training Teams and involved three categories: creating Docs, finding solutions to SQRs, and creating Reports.

**Docs**

The Issuance Team was responsible for the piece of software that issued any sort of authorization relating to the DOL for Washington residents. Examples of authorizations would be: all variations of a Driver’s License, Learner’s Permits, State IDs, etc. The Issuance Transaction was the term used to describe the sequence of Docs (forms a DOL employee must complete for any of these authorizations) that made up the Issuance Transaction flow. The portion of the Issuance Transaction I worked on was for a Commercial Driver’s License (CDL).

Developing the CDL section for the Issuance Transaction involved creating the required Docs. The development process for a Doc typically takes the path of deciding on what information will be collected by the Doc, building the Doc itself, placing the Doc in the flow of the transaction, and then finally managing the data through that flows through the Doc.

Creating a Doc begins with investigating what information is currently collected by the software in use prior to Fast’s. This step is usually completed by attending “information gathering” meetings between Fast and state employees. During one of these meetings, Fast and state employees will analyze the information currently being gathered and have a discussion concerning which pieces of information are still necessary and which are not. The decisions made in these meetings are not always cut and dried.

The second step is to build the Doc itself within Fast’s software. This step involves placing text fields, text boxes, labels, drop-down menus, etc. throughout the Doc. The main hurdles to overcome in this section of development are deciding which data fields should be clumped together and whether the Doc is aesthetically pleasing or not.

Third comes placing the Doc in the Issuance Transaction flow. After the Doc has been created, it needs to be placed in the correct section of the flow. Determining the flow is a whole different section of development. This section doesn’t involve much more than some configuration within Fast’s software that ensures the created Doc is embedded in the correct location.

For the final stage of Doc creation, the data coming in and out of the Doc needs to be managed. This section is where VB.NET and SQL are used. VB.NET and SQL are used to get previously-collected information from the database onto a current Doc or to store the information collected on the Doc in the database. VB.NET’s primary function is to collect or display data on the Doc itself and SQL is used to store or get that data from a database.

I created multiple Docs, applying every stage outlined above, to create the CDL section of the Issuance Transaction. I also created multiple Docs for a transaction required by the Training Team.

**SQRs**

SQRs, service requests, are how Fast handle bugs that are generated by the software when it is in use. I was assigned multiple SQRs over the summer from the first rollout for the Washington DOL. Some SQRs were very trivial and some were more complicated. One example of a more complicated SQR involved allowing information from one specific transaction, once completed, to be staged to a separate flow in another transaction automatically. One example of a trivial SQR I completed was to change the wording of a label already on a Doc.

**Reports**

Using SQL, I created and altered many Reports, which are Fast’s means for displaying large amounts of data. Reports are done in two pieces: the query used to gather the data that will be displayed, and the creation of the form of data management used to display that data.

The changes I made to a few Reports that had already been created involved altering the queries to gather information from the second rollout instead of the first.

Alternately, the reports I created myself, which belonged to the Training Team, were meant to help them keep track of and easily maintain many aspects of their work. The queries written for these reports were often based off data collected in Docs that I made, so these Reports were a nice way to summarize the process of bringing the data in, storing it, and then getting it back and visualizing it.

**Challenges I Faced**

The challenges I faced during my internship were primarily based in never having worked in a professional setting before. Some of the challenges were not having enough work, not having a direct supervisor, finding solutions to problems with limited documentation, and transitioning to working in an office.

**How I Overcame Those Challenges**

Working in an office setting was something I had never experienced before, so learning how to complete development tasks in set hours was a challenge that took time to overcome. Conquering the challenge of finding solutions to problems with barely any Documentation almost entirely involved asking more experienced employees around me for help. There were a few problems I could solve on my own, but most of the time, when I was assigned a task, I would also receive a brief explanation on how to complete it. If this explanation was not enough, I would then utilize the resource of fellow co-workers to finish the task.

The two challenges I did not resolve were not having a direct supervisor to act as someone to report to and not having enough work. Both remained issues until the conclusion of the internship and were beyond my control.

**What I learned**

Throughout this internship I advanced a few technical skills, fewer than I had originally hoped, and various soft skills. While this internship came up short in advancing my technical skills, it excelled in advancing numerous soft skills.

On the technical side, I advanced knowledge in the .NET framework and SQL. I went into this internship with an extended knowledge of the .NET framework, so this summer helped secure that understanding. However, I had not been exposed to VB.NET, so this was a new aspect of the .NET framework for me. I completed quite a few queries in SQL, which aided me in gaining a much stronger understanding of this language and databases in general.

For the soft skills I developed over the summer, I gained experience working in a group with complete strangers, gathering requirements, communicating and interacting with users, and iterative development. The type of group work I encountered during this internship was slightly different than group projects I have completed in various collegiate course, where I was more familiar with my group members. Gathering requirements was something I had never really been exposed to until I attended a few of those “information gathering” meetings. For most of the projects done for courses, I am presented with a list of requirements, instead of gathering them myself.

One of the skills I am most excited to have developed over this internship is the ability to interact and communicate with testers/users. Being able to develop something, hand it off to a tester that will be eventually be using this technology, and then receive feedback was very valuable. This skill represents how I experienced the iterative development process, which was both frustrating and rewarding.

**Conclusion**

I found this internship to be very enjoyable. Fast is a great company to work for and they take care of their employees and interns well. The only drawback I found was the potential for skills you develop with Fast to not be very transferable.

This internship satisfied my primary learning objective of gaining experience developing in a professional setting, as well as, advanced many soft skills and secured understanding for a few technical skills.