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SUBJUCT: Co-op term

# Introductory Summary

Employment period was from May 24th, 2016 to August 19th, 2016. I was employed by Employment and Social Development Canada (ESDC). My supervisors name was Paulo Lengler.

# Employer Description

The mission of Employment and Social Development Canada (ESDC), including the Labour Program and Service Canada, is to build a stronger and more competitive Canada, to support Canadians in making choices that help them live productive and rewarding lives and to improve Canadians’ quality of life.

ESDC delivers a range of programs and services that affect Canadians throughout their lives such as, providing seniors with basic income security, supporting unemployed workers, helping students finance their post-secondary education and assisting parents raising young children.

The Labour Program is accountable for labour laws and policies in federally regulated workplaces, with Service Canada delivering ESDC’s programs to Canadians as well as other Government of Canada programs and services.

We design or deliver some of the Government’s most well-known programs or services

* Old Age Security (OAS);
* The Canada Pension Plan (CPP);
* Employment Insurance (EI);
* Canada Student Loans and Grants;
* The Canada Education Savings Program;
* The Wage Earner Protection Program;
* Passport Services; and
* Federal Mediation and Conciliation Services

# Position Description

My position was with the ESDCs iTeam. The iTeam manages the development and management of the Oracle Data Service Bus. Specifically, I was part of the Platform sub-team. The Platform team works specifically on managing and maintaining the Service Bus. The iTeam operates using an agile-scrum workflow, which means I was not assigned daily activities. Instead, I was free to pick up tickets as I saw fit. The only thing close to a regular activity was deploying artifacts to the DSB verticals, which would happen usually once or twice a week. These tickets could be picked up by any member of the Platform team, and I tried to grab them whenever possible

Most of the projects I worked on were specifically to help move the team over from version 11g to 12c. Specific projects I worked on included monitoring the 12c domains with Oracle Cloud Control, adding SSH key authentication to Cloud Control, implementing the Oracle Harvester inside of Cloud Control, and investigating into constraints that could be, and if the future will be, applied to various business services.

Other projects that were outside of the version migration included parsing raw data to determine the amount of queries made to the available queues. This task gave me an appreciation for the power of the grep, sed, and awk utilities. I also assisted in installing the git frontend GitBlit, and building the related start-up script.

# Technical Environment

My workstation was an Intel Core i5-4590 CPU @ 3.30GHz with 16 GB of RAM running 64-bit Windows 7. I started off with a Microsoft ergonomic keyboard, Microsoft ergonomic mouse, and a 1920 x 1080 BenQ LCD monitor. I eventually gained another monitor (Samsung B2230W @ 1680 x 1050), swapped the mouse out for a HP brand mouse and then again for a Kensington Pro Fit Full-Size mouse, swappe the keyboard out for a Targus keyboard and then again for a Key Tronic keyboard, and gained an Avaya VoIP phone. All of the hardware was made available by the IT department; none of it was brought from home.

Only a regular basis I connected into two server operating systems: IBM AIX 6.1/7.0 and Red Hat Enterprise Linux Server 6.7. At first I used PuTTY to SSH into the servers, and then switched to PuTTYTray.

I did not have to use any programming languages during this work term. However, I did use scripting languages. I created scripts to be used by Korn Shell on AIX and BASH on RHEL. I also learned a bit of Python for scripting, but didn’t delve in to it a ton.

# Skills Used and Acquired

I feel that most skills learned in the Computer Science program were not used during this co-op. Hardware and Operating Systems gave me a brief overview on moving through directories and changing permissions using the CLI inside of Linux, but anything more than that was learned out of class or during the work term. Networking helped with a specific instance where I was tasked with creating a page that described exactly how the network operated. Business Information gave me a general understanding of some of the terminology used here at the iTeam, but most of it was picked up as I worked. I feel that the Computer Science program could give a slightly more in-depth look into the power of the UNIX/Linux CLI, as someone who didn’t already have a general understanding of it may have had a harder time picking up all the skills.

During the co-op I picked up many skills, including a better understanding into the use of the UNIX/Linux CLI. Many of the things I learned while here I went on to apply to my machine at home, which was a nice advantage. I learned how to use many of Oracles enterprise software, including Enterprise Manager, WebLogic Service, SOA Composite, and Cloud Control. I also learned how to use Subversion to manage source content.

# Evaluation of Co-Op Experience

I felt fairly prepared for the co-op experience. I have worked in a large team previously, so the idea of having a large group of peers is not unknown to me. Technically I felt a bit unprepared. While I understood the basics of what I was doing, I wasn’t confident originally that I was able to do the tasks given to me. However, the documentation available from the iTeam and Oracle helped greatly. My co-workers were also always ready to help me and show me how to do something that I may not have understood. After a month of learning, I felt confident that I could do just about’ any task I wanted to do.

I could have better prepared myself by doing more investigation into the Oracle services I knew were going to be used. That may have made the learning curve easier to handle. As I mentioned previously, I fell that the Computer Science program could have focused on using enterprise level server operating systems, such as flavours UNIX and Linux as opposed to focusing exclusively on Windows Servers, of which I had no interaction with.

I wouldn’t say there was a specific highlight of my work term. Even when I wasn’t quite sure what I was doing, I was having fun. The iTeam are all great people to work with and the Platform team specifically was a blast. Being able to do something that I enjoy as a job was the highlight of my summer.

# Conclusion

Overall, I very much enjoyed this co-op work term. I got to spend time working on UNIX/Linux systems in an enterprise environment, and got to spend time with some incredible people who are very intelligent in fields of Computer Science. While I feel like I could have been better prepared, I overall integrated fairly quickly and found myself working comfortably.