

CS315 PROJECT PART 2

REPORT

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We implemented two parsers for the second part of the project which are for graph definition and querying languages. While we were implementing parsers for our language Geez, we faced with many problems.

Initially, one of the group members tried to use Ubuntu by booting from a USB device. However, we realised that her computer is not eligible to boot from a USB device. Thus, she tried to install a Virtual Machine instead of using Ubuntu from a USB device. Unfortunately, there were still problems with the VM. So, we had to do this project by using only 2 computers which made this project more challenging for us.

Another problem occurred during writing the grammar and doing the implementation. Since each group members have different class schedules, it was hard to meet in a common spare time and write them simultaneously. So, we tried to actively use Whatsapp and Google Drive for the changes that we made. However, it was not as effective as making all the changes together.

Final and the biggest problem was to make our grammar unambiguous. Since we have different kinds of operations, declarations, collection and primitive types, it was really challenging to write an unambiguous grammar. So, we had to be so careful about the associativity and precedence. After writing our grammars, we tried to solve reduce-reduce and shift-reduce conflicts which were demonstrated as warnings when we tried to compile. Although we made great effort to write an unambiguous grammar, we got ambiguity errors. Since the debugging tools weren't sufficient, we had to trace the grammar step by step for different inputs.

To summarize, we faced with more than one problems while doing the second part of the

project. But, since everyone tried to do her/his best, we managed to make a clear, understandable and unambiguous “Geez” language.