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This assignment challenged us to create a program in a language familiar to us, then convert our code over to five new languages. The base program which was initially done in java was to take a given number (n) and list all possible rooted, ordered trees with (n) nodes. We displayed our programs output using open and closed brackets. An Example of possible output for 4 nodes goes as follows:

((())())

(((())))

(()()())

((()()))

(()(()))

Though the idea of the program was simple, trying to reverse engineer the base program into 5 different languages was quite complex. Using tutorials, example codes, along with current level and understanding of programming. We were able to come up with attached code solutions.

Language versions used in this assignment:

Ada: 20150428-49

C#: 4.3.0.0

Prolog: 6.6.6

Python: 3.4.2

OCaml: 4.02.2

While each of the programs had minor run-time or syntax errors we attempted to get the concepts across for them. (Except Prolog) Certain languages we could convert easier than others such as C# and with a little more effort Python. It became much more difficult when we were attempting Ada and once we got to OCaml it became quite confusing. Overall we learned more about these other languages then we normally would and while we didn’t complete the homework we gained some knowledge in that each language is very different but some concepts remained the same.