

In this session, instead of focusing on updating the functionality of our code that translates C into Lisp, we started a brand new code that translates Lisp into Forth (postfix notation). We will refer to this part of the final assignment as the backend, as opposed to the frontend, which was what we were doing in the previous sessions.

What we needed to do was use the output of the code of the previous sessions as the input of the new code, which would be transformed with something compliant with the syntax of Forth. Since it was a new code file we first needed to create the tokens for all the keywords that we would be using (setq, setf, print, princ, do, loop, if, etc.). After that, we just needed to do exactly what we did earlier, but changing the grammar so that it fits the Lisp syntax. Once that was done we only needed to adjust the output to adapt to the Forth language. The general structure of our backend code ended up being almost a mirror image of our frontend code.

We also worked on extending the support of our C to Lisp transpiler adding arrays and return statements at the end of functions.

We have yet to implement support for: mid-function returns and modification of names for local variables in the frontend; and functions with arguments, return statements and arrays for the backend.