

CS 315 - Programming Languages

Project Part 2

*Fall 2016*

APES: a Language that Draws Shapes

Group 1-7

Abdullah Al-Wali

Selin Özdaş

Utku Uçkun

Challenges:

Those problems are listed below:

* We had to change the lex file to return tokens as it was only printing things in part 1.
* Debugging yacc was difficult as the resources regarding the built in debug mode were scarce and hard to find
* Printing tokens in a logical order was difficult, as the yacc uses a shift reduce parse and therefore executes the commands at the lowest level up to the highest in the grammar, thus giving a reverse printf. Solved this by changing YYSTYPE to String and manipulating the { $$ } variable in each rule and then printing the result in the topmost rule.
* Implementing parameters was difficult and required multiple levels of rules as we had to allow named parameters in addition to normal parameters at the constraint that named parameters can only come after normal parameters if the latter exists.
* Dealing with the newline character was problematic as the default behaviour of yacc is to execute the current input when a new line is encountered.
* Control statements were the hardest and most challenging to implement