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CPSC 326: Semester Project

### MyPL REPL Specs

#### Goals:

- Type a MyPL expression into a prompt and print the result of the expression
  - Remove requirement for main() function
  - Read in user input string and determine if lexically, semantically, and syntactically correct.
- Be able to define types and functions from the command prompt and use them
- (Bonus Goal) Run a mypl file as if they were being typed in

#### Plan:

- Add to the current command-line code entry and add a "--repl" tag
- Make a Java program to read the input, run it through all the checkers, generate the bytecode, then have the VM generate bytecode
  - Generate bytecode for function declaration
  - Generate and run bytecode for basic input and Expression input
- Keep a running symbol table and TypeInfo object
- Handle a line being not just Stmt, but also ExprTerm if outside of a function declaration and print the result if that is the case
- Syntax Error on Return statements outside of functions
- (Bonus Goal) Have the "--repl" mode take in a file and run it as if it were being typed-in

Note: many REPL's have  
a "hidden" it var ...