Homework 2

Demo:

Yacc –d HW2.y

lex HW2.l

cc lex.yy.c y.tab.c –o HW2

./HW2 <my\_double\_case.txt

Features:

1. Print out the recognized token.

|  |  |
| --- | --- |
| 1. + | ADD |
| 1. - | SUB |
| 1. \* | MUL |
| 1. / | DIV |
| 1. % | MOD (only on integer operation) |
| 1. = | ASSIGN |

1. Print out “Create a symbol table”, when scanning the first id token.



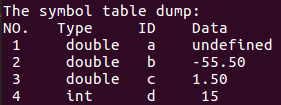
1. Print out “Insert a symbol:[ID]”, whenever scanning the id token which is not in the symbol table.



1. Print out the number of lines.



1. Print out whole symbol table with index number+1,type, id name, and its data,when end of file. And it will print “undefined” if variable was not assigned value.



1. Print out the value or string or id in print function



1. Allow case-insensitive keywords.
   1. int,Int,iNt,inT,INt,InT,iNT,INT
   2. double,DOUBLE
2. Skip contents of comments.

|  |  |
| --- | --- |
| 1. //this is comments | //this is comments COMMENT1 |
| 1. /\* this is comments\*/ | /\* this is comments\*/ COMMENT2 |

1. It can operate double type value which précised in two digits. And it will auto-widen the int type value to double one when calculating two type value.

Error Detect:

If there is any error in the statement, it would **not** do the statement and print the error message with the number of line.

* 1. Re-define variables



* 1. Handle divided or modulo by zero error



* 1. Operate on undeclared variables



* 1. Print id’s value without assignment



Warning:

If there is any warning in the statement, it would do the statement, but print the warning message with the number of line.

1. Assign the double type value to int type variable

