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Compiler Theory
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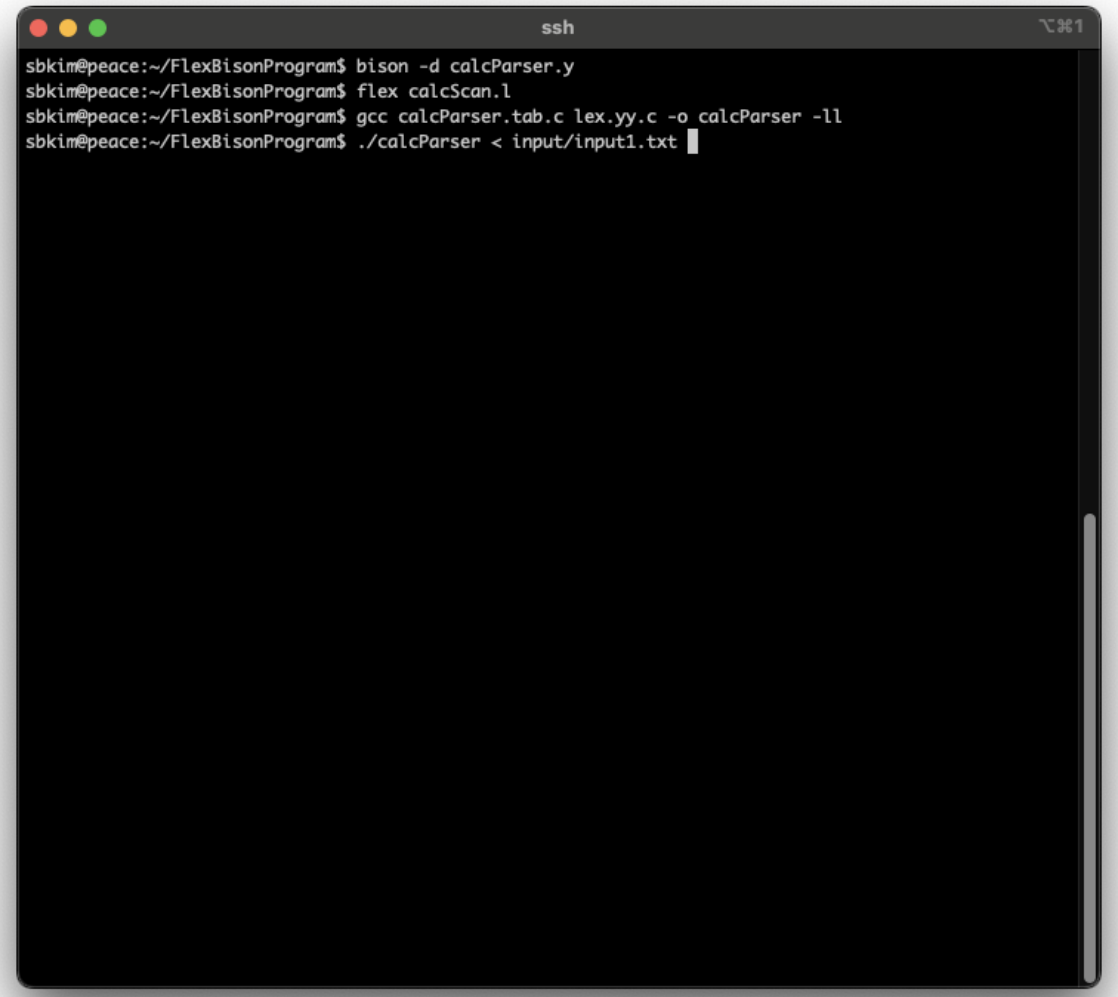
Flex Bison Program

Command Sequence and Generated Output

Build command sequence



Running Output

input/input1.txt

```
Entering state 50
Reducing stack by rule 6 (line 55):
   $1 = token PRINT_LINE ()
   $2 = token '(' ()
   $3 = nterm expression ()
   $4 = token ')' ()
   $5 = token ';' ()
100
-> $$ = nterm statement ()
Stack now 0 1 3 5 10
Entering state 19
Reducing stack by rule 2 (line 48):
   $1 = nterm statements ()
   $2 = nterm statement ()
-> $$ = nterm statements ()
Stack now 0 1 3 5
Entering state 10
Reading a token: Next token is token END_BLOCK ()
Shifting token END_BLOCK ()
Entering state 18
Reducing stack by rule 1 (line 44):
   $1 = token PROGRAM ()
   $2 = token IDENTIFIER ()
   $3 = token BEGIN_BLOCK ()
   $4 = nterm statements ()
   $5 = token END_BLOCK ()
Program LexYacc executed
-> $$ = nterm program ()
Stack now 0
Entering state 2
Reading a token: Now at end of input.
Shifting token $end ()
Entering state 4
Stack now 0 2 4
Cleanup: popping token $end ()
Cleanup: popping nterm program ()
sbkim@peace:~/FlexBisonProgram$
```

input/input2.txt

```
   $4 = token ')' ()
   $5 = token BEGIN_BLOCK ()
   $6 = nterm statements ()
   $7 = token END_BLOCK ()
   $8 = token ELSE ()
   $9 = token BEGIN_BLOCK ()
   $10 = nterm statements ()
   $11 = token END_BLOCK ()
-> $$ = nterm statement ()
Stack now 0 1 3 5 10
Entering state 19
Reducing stack by rule 2 (line 48):
   $1 = nterm statements ()
   $2 = nterm statement ()
-> $$ = nterm statements ()
Stack now 0 1 3 5
Entering state 10
Reading a token: Next token is token END_BLOCK ()
Shifting token END_BLOCK ()
Entering state 18
Reducing stack by rule 1 (line 44):
   $1 = token PROGRAM ()
   $2 = token IDENTIFIER ()
   $3 = token BEGIN_BLOCK ()
   $4 = nterm statements ()
   $5 = token END_BLOCK ()
Program LexYacc2 executed
-> $$ = nterm program ()
Stack now 0
Entering state 2
Reading a token: Now at end of input.
Shifting token $end ()
Entering state 4
Stack now 0 2 4
Cleanup: popping token $end ()
Cleanup: popping nterm program ()
sbkim@peace:~/FlexBisonProgram$
```

input/input3.txt

```
ssh
Reducing stack by rule 3 (line 49):
   $1 = nterm statement ()
-> $$ = nterm statements ()
Stack now 0 1 3 5 10 9 17 32 42 52
Entering state 54
Reading a token: Next token is token IDENTIFIER ()
Shifting token IDENTIFIER ()
Entering state 6
Reading a token: Next token is token '=' ()
Shifting token '=' ()
Entering state 13
Reading a token: Next token is token NUMBER ()
Shifting token NUMBER ()
Entering state 21
Reducing stack by rule 20 (line 90):
   $1 = token NUMBER ()
-> $$ = nterm factor ()
Stack now 0 1 3 5 10 9 17 32 42 52 54 6 13
Entering state 26
Reducing stack by rule 19 (line 86):
   $1 = nterm factor ()
-> $$ = nterm term ()
Stack now 0 1 3 5 10 9 17 32 42 52 54 6 13
Entering state 25
Reading a token: Next token is token ';' ()
Reducing stack by rule 16 (line 80):
   $1 = nterm term ()
-> $$ = nterm expression ()
Stack now 0 1 3 5 10 9 17 32 42 52 54 6 13
Entering state 24
Next token is token ';' ()
Reducing stack by rule 13 (line 68):
   $1 = token IDENTIFIER ()
   $2 = token '=' ()
   $3 = nterm expression ()
Error: Undefined variable
sbkim@peace:~/FlexBisonProgram$
```

*All deliverables and source code files are in ~/sbkim/FlexBisonProgram/ for validation.