

SSN COLLEGE OF ENGINEERING, KALAVAKKAM
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Compiler Design Lab – CS6612

PROGRAMMING ASSIGNMENT 4 – DESK CALCULATOR USING YACC

Write Lex program to recognize relevant tokens required for the Yacc parser to implement desk calculator. Write the Grammar for the expression involving the operators namely, $+$, $-$, $*$, $/$, $^$, $($, $)$. **Precedence and associativity has to be preserved.** Yacc is available as a command in linux. The grammar should have non terminals E, Op and a terminal id.

Verify your calculator with the following inputs

1. $3+9$
2. $3+9*6$
3. $(3+4)*7$
4. $(3-4)+(7*6)$
5. $5/7+2$
6. 4^2^1
7. $(2^3)^2$

Bonus Points:

Extend your calculator to evaluate Boolean expressions.

Tips to use tools

- Write Lex specification, compile and execute to check for the tokens, namely, operators and the identifiers.
- Write yacc specification in ex.y and type the command yacc ex.y. The output will be y.tab.c
- Compile using the command cc y.tab.c. The output will be a.out
- Use exe to give input and get the output.