Lab Practice Session # 3

Course Title: Compiler Construction Lab (CSTE-3110)

1. **Install flex in your pc. Please follow the guidelines provided in Lab slides. Then run the following code:**

```
%%
[\t ]+ /* Ignore Whitespace */;
[+-]?[0-9]+(\.[0-9]+)?([eE][+-]?[0-9]+)? printf(" %s:number", yytext);
[a-zA-Z]+ printf(" %s:NOT number", yytext);
%%
int yywrap(){
return 1;
}
main()
{
 yylex();
}
```

2. **Write a C program that recognizes integer, floating-point numbers, and floating-point number with exponentiation. (using transition diagram)**

Input:	**Output:**
Enter a number: 12	12: Integer number
Enter a number: 12.23	12.23: Floating point number
Enter a number: 12.23E4	12.23E4: Floating point number with exponentiation
Enter a number: 12.23E-4	12.23E-4: Floating point number with exponentiation
Enter a number: abcd	abcd: Not a number

Assignment on Syntax Analysis (Report # 2)

3. **Write a C program to compute FIRST and FOLLOW for the following grammar:**
   S -> iCtSS'
   S' -> eS|N
   Where N is a null character.

4. Write a C program to eliminate left recursion from the following grammar:
   E -> E+T|T
   T -> T*F|F
   F -> (E)|id

Report Submission Deadline: 01/10/2024