Compiler Design Lab:1

**Problem Description:**

In this assignment, your job is to program a simple lexical analyzer that will build a symbol table from given stream of chars. You will need to read a file named "input.txt" to collect all chars. For simplicity, input file will be a C program without headers and methods. Then you will identify all the numerical values, identifiers, keywords, math operators, logical operators and others [distinct]. See the example for more details. You can assume that, there will be a space after each keywords. But, removal of space will add bonus point.

**Input:**

int a, b, c;

float d, e;

a = b = 5;

c = 6;

if ( a > b)

{

c = a - b;

e = d - 2.0;

for(int f=5; f<=0; f++)

{

printf(“%d”,f);

}

}

else

{

d = e + 6.0;

b = a + c;

}

**Output:**

**Keywords:** int, float, if, else, for, printf

**Identifiers:** a, b, c, d, e, f

**Math Operators:** +, -, =, ++

**Logical Operators:** >,<=

**Numerical Values:** 5, 6, 2.0, 6.0, 5, 0

**Others:** , ; ( ) { } % “ “