COMPILER DESIGN LAB

WEEK 3 – EXERCISE

1. Write the Lex Program to find the token and its count from input file for the following.

   a. Identifier
   b. number
   c. Translating all letter appearances into Capitalize each word.
   d. Whitespace (delimiter = space / tab / newline)
   e. Assignment symbol (:=)
   f. Operator Symbol (+ , - , *, /)

   Input:

```
#define a (x +1)
int x , 2;
void b() {
        int x =1;
        printf ("%d \n ", a);
        }
void c() {
        printf("%d \n ", a);
         }
void main () {
        b ( );
        c( );
        }
```

2. Write the Lex Program to find the token and its count from input file for the following.

   a. Keyword (if, then, else, for, while, int, float, real)
   b. Relational operator symbol (< , <=, > , >=, <>, =)
   c. Uppercase and Lowercase letter
   d. Special characters (! , @ , #, $, %, ^, &, * , ())
   e. Characters, words and lines

   Input :

```
while (c ! = eof) {
          s = move(s,c);
          c := ;
If (c = = '<' )
        state = 1;
else if (c = =  ' =' )
        state  = 5;
else if (c = = ' > ')
state  = 6;
        }
If (s = F )
        return "yes";
else
        return "no";
```