Practical - 3

AIM: Write a lex program to count positive and negative numbers from the input file. (Note: It is compulsory to read the input from the file and display the results in another file)

Example program:

// lex file: a.l

```
%{
    int postiveno=0;
    int negtiveno=0;
    int positivefractions=0;
    int negativefractions=0;
%}

DIGIT [0-9]
%%

\+?{DIGIT}+                    postiveno++;
-{DIGIT}+                      negtiveno++;

\+?{DIGIT}*\.{DIGIT}+          positivefractions++;
-{DIGIT}*\.{DIGIT}+            negativefractions++;
. ;
%%

main()
{
    yylex();
    printf("\nNo. of positive numbers: %d",postiveno);
    printf("\nNo. of Negative numbers: %d",negtiveno);
    printf("\nNo. of Positive fractions: %d",positivefractions);
    printf("\nNo. of Negative fractions: %d\n",negativefractions);
}
```

// Input file: a.txt

```
+12,-123,1.1,-1.1,12,-2,-3,2.1,3.2,5.1,-5.5,-6.1,-7.7,-8.8
```

Output:

```
No. of positive numbers: 2
No. of Negative numbers: 3
No. of Positive fractions: 4
No. of Negative fractions: 5
```