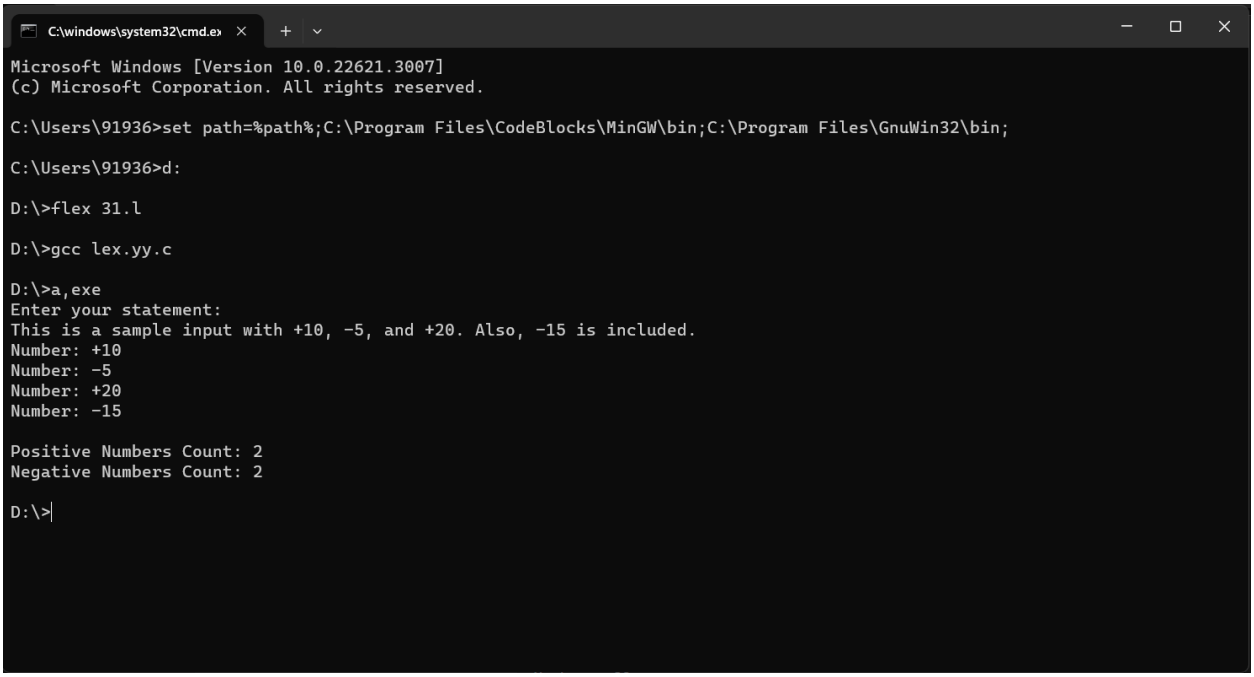
31. Write a LEX program to identify and count positive and negative numbers.

```
%{
#include <stdio.h>

int positiveCount = 0;
int negativeCount = 0;
%}

%%

[+-]?[0-9]+     {
                if(yytext[0] == '+') {
                   positiveCount++;
                } else if(yytext[0] == '-') {
                   negativeCount++;
                }
                printf("Number: %s\n", yytext);
            }
.           ; /* Ignore any other characters */

%%

int main() {
```

```
    char input[4096]; // Adjust the size based on your needs
    printf("Enter your statement:\n");

    if (fgets(input, sizeof(input), stdin) == NULL) {
        fprintf(stderr, "Error reading input.\n");
        return 1;
    }

    // Set the input buffer
    yy_scan_string(input);

    // Start parsing
    yylex();

    // Print counts
    printf("Positive Numbers Count: %d\n", positiveCount);
    printf("Negative Numbers Count: %d\n", negativeCount);

    return 0;
}
int yywrap() { return 1; }
```


C:\windows\system32\cmd.e
Microsoft Windows [Version 10.0.22621.3007]
(c) Microsoft Corporation. All rights reserved.
C:\Users\91936>set path=%path%;C:\Program Files\CodeBlocks\MinGW\bin;C:\Program Files\GnuWin32\bin;
C:\Users\91936>d:
D:\>flex 31.l
D:\>gcc lex.yy.c
D:\>a,exe
Enter your statement:
This is a sample input with +10, -5, and +20. Also, -15 is included.
Number: +10
Number: -5
Number: +20
Number: -15
Positive Numbers Count: 2
Negative Numbers Count: 2
D:\>