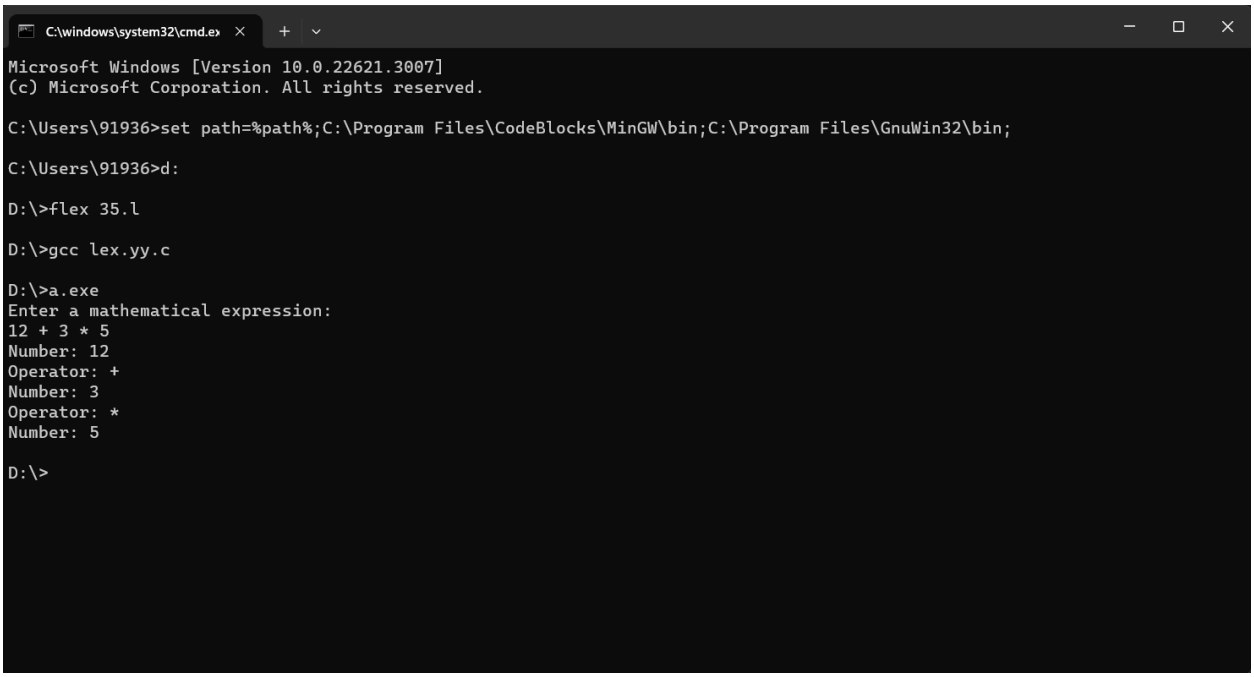
35. A School student was asked to do basic mathematical operations. Implement a LEX program to implement the same.

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

%%
[0-9]+          { printf("Number: %s\n", yytext); }
[-+*/]          { printf("Operator: %s\n", yytext); }
[ \t\n]         ; // Ignore whitespace and newline characters
.               { printf("Invalid character: %s\n", yytext); }

%%

int main() {
    char input[4096]; // Adjust the size based on your needs
    printf("Enter a mathematical expression:\n");

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

```
    // Remove newline character if present
    for (int i = 0; input[i] != '\0'; i++) {
        if (input[i] == '\n') {
            input[i] = '\0';
            break;
        }
    }

    // Set the input buffer
    yy_scan_string(input);

    // Start parsing
    yylex();

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


C:\windows\system32\cmd.ex
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 35.l
D:\>gcc lex.yy.c
D:\>a.exe
Enter a mathematical expression:
12 + 3 * 5
Number: 12
Operator: +
Number: 3
Operator: *
Number: 5
D:\>