Design a lexical Analyzer to validate operators to recognize the operators +,-,*,/ using regular arithmetic operators using C

```c
#include <stdio.h>

#include <string.h>

#include <ctype.h>


// Function to check if a character is a valid arithmetic operator

int isArithmeticOperator(char ch) {

    return (ch == '+' || ch == '-' || ch == '*' || ch == '/');

}


// Function to analyze input and recognize arithmetic operators

void lexicalAnalyzer(char *input) {

    int len = strlen(input);

    int i = 0;


    printf("Recognized Operators:\n");


    while (i < len) {

        // Skip whitespace

        if (isspace(input[i])) {

            i++;

            continue;

        }


        // Check for arithmetic operators

        if (isArithmeticOperator(input[i])) {

            printf("Operator: %c\n", input[i]);

        } else {

            printf("Invalid Symbol: %c (Ignored)\n", input[i]);

        }
```

```c
        i++;
    }
}


// Main function
int main() {
    char input[100];

    printf("Enter an expression: ");
    fgets(input, sizeof(input), stdin);

    lexicalAnalyzer(input);

    return 0;
}
```
Input:

a + b - c * d / e