ALGORITHM:

1. Initialize counters for line count (lc), space count (sc), tab count (tc), character count (ch), and word count (wc).
2. Define rules to match newline, space, tab, and non-space/tab/newline characters. Increment corresponding counters based on matches.
3. Prompt the user to enter a sentence.
4. Invoke lexical analysis using yylex().
5. Signal the end of input. 6. Display the total word count.

PROGRAM:

```
%{
#include<stdio.h>
int lc=0,sc=0,tc=0,ch=0,wc=0;
%}
%%
[\n] { lc++; ch+=yyleng;}
[ \t] { sc++; ch+=yyleng;}
[^\t] { tc++; ch+=yyleng;}
[^\t\n ]+ { wc++; ch+=yyleng;}
%%
int yywrap(){ return 1; } int
main(){
        printf("Enter the Sentence : ");
        yylex();
        printf("Number of words: %d\n",wc);
        return 0;
}
```

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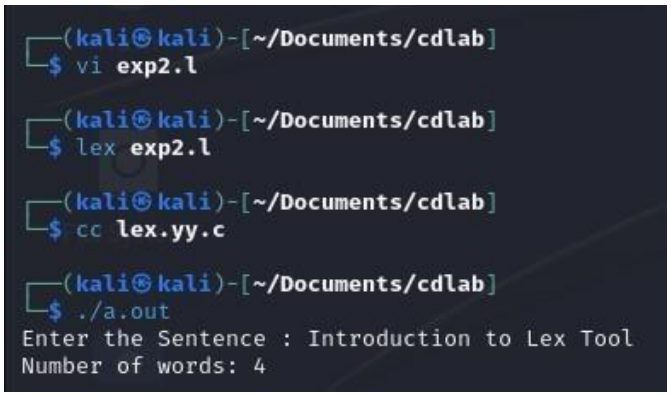
OUTPUT:



RESULT:

Thus, the program to count the number of words in a string using LEX tool has been implemented.

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