Assignment No-3

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Q. Implement LEX/FLEX code to count the number of characters, words and lines in an input file.

```
%{
#include <stdio.h>
int char_count = 0;   // To store character count
int word_count = 0;   // To store word count
int line_count = 0;   // To store line count
%}

%%
\n        { line_count++; }  // Count lines when newline is encountered
[ \t]+     { /* Ignore spaces and tabs */ }
[a-zA-Z]+   { word_count++; char_count += yyleng; }  // Count words (letters only)
.         { char_count++; }  // Count every other character
%%
int yywrap() {
   return 1;  // Return 1 to indicate the end of input
}
int main(int argc, char *argv[]) {
   if (argc != 1) {
      printf("Usage: %s\n", argv[0]);
      return 1;
   }
```

```
    yyin = stdin;  // Set the input to standard input (command line)

    printf("Enter your text (Ctrl+Z followed by Enter to end input):\n");

    yylex();  // Start lexical analysis

    // Print the results in a neat format
    printf("\n--- Results ---\n");
    printf("Lines:       %d\n", line_count);
    printf("Words:       %d\n", word_count);
    printf("Characters:    %d\n", char_count);
    printf("---------------\n");

    return 0;
}
```

Output :