Exp 3 : LEX PROGRAM TO COUNT NO OF LINES etc

1. Start
2. Declare global variables: lc, sc, tc, ch, wc.

3. Lexical Analyzer Rules Section
    1. For each newline character (\n), increment lc and add yyleng to ch
    2. For each tab or space character (\t or ' '), increment sc and add yyleng to ch
    3. For each sequence of characters other than tabs, spaces, and newlines, increment wc and add yyleng to ch

4. yywrap Function - Return 1 indicating the end of input

5. Main Function
    1. Print a prompt to enter a sentence
    2. Call yylex() to initiate the lexical analysis
    3. Print the following results:
        - Number of lines (lc).
        - Number of spaces (sc).
        - Number of words (wc).
        - Number of characters (ch).
6. Stop

Counter code (Lex)

```
%{
   #include<stdio.h>
   int lc=0,sc=0,tc=0,ch=0,wc=0;
%}

%%
[\n] { lc++; ch+=yyleng; }
[ \t] { sc++; ch+=yyleng; }
[^\t\n ]+ { wc++;  ch+=yyleng; }
%%

int yywrap(){
        return 1;
}

int main(){
   printf("Enter the Sentence  (press Ctrl+D to get output) :  ");
   yylex();
   printf("No of lines = %d\n",lc);
   printf("No of spaces = %d\n",sc);
   printf("No of words = %d\n",wc);
   printf("No of characters = %d\n",ch);

   return 0;
}
```

```
deadpool@daredevil:~/Desktop/s7-CD/02 LEX/Counts$ flex counts.l
deadpool@daredevil:~/Desktop/s7-CD/02 LEX/Counts$ gcc lex.yy.c -o counts
deadpool@daredevil:~/Desktop/s7-CD/02 LEX/Counts$ ./counts
Enter the Sentence  (press Ctrl+D to get output) :  Hi
This is a lex program
to count lines characters etc
No of lines = 3
No of spaces = 8
No of words = 11
No of characters = 55
deadpool@daredevil:~/Desktop/s7-CD/02 LEX/Counts$
```