Exp. No. 23

Write a LEX program to count the number of Macros defined and header files included in the C program.

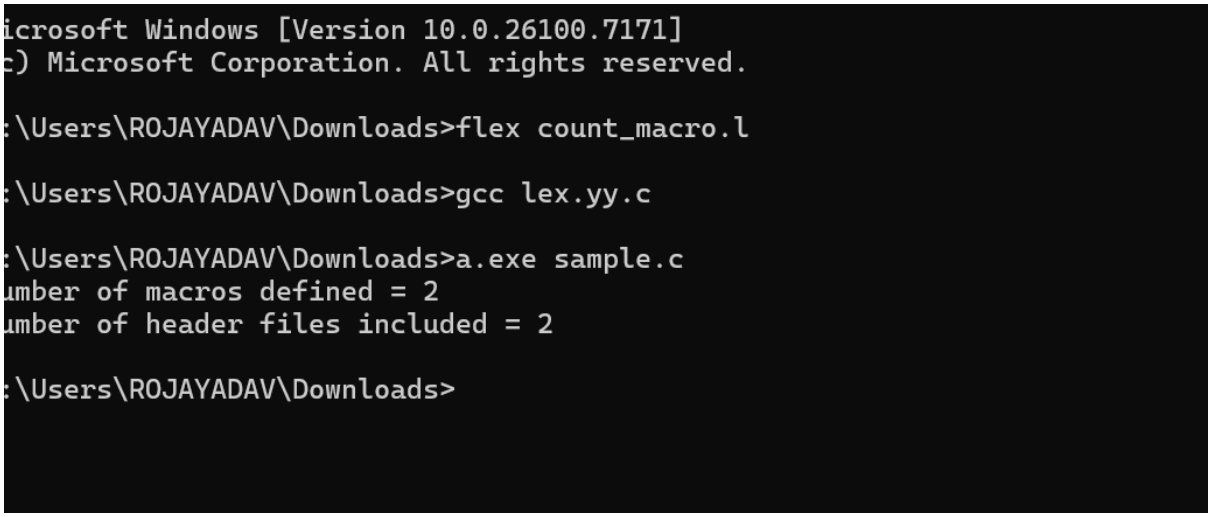
Sample.c(Source code:)

```
#include <stdio.h>
#include <math.h>

#define PI 3.14
#define MAX 100

int main() {
   return 0;
}
```

Program: (count_macro.l)

```
%{
#include <stdio.h>
#include <stdlib.h>
FILE *yyin;

int nmacro = 0;
int nheader = 0;
%}

%%
^#define   { nmacro++; }
^#include  { nheader++; }
.|\n       { /* ignore other characters */ }
%%

int yywrap(void) {
   return 1;
}

int main(int argc, char *argv[]) {
   yyin = fopen(argv[1], "r");
   if (!yyin) {
      printf("File not found!\n");
      return 1;
   }

   yylex();

   printf("Number of macros defined = %d\n", nmacro);
   printf("Number of header files included = %d\n", nheader);

   fclose(yyin);
   return 0;
}
```

Output:


icrosoft Windows [Version 10.0.26100.7171]
c) Microsoft Corporation. All rights reserved.
:\Users\ROJAYADAV\Downloads>flex count_macro.l
:\Users\ROJAYADAV\Downloads>gcc lex.yy.c
:\Users\ROJAYADAV\Downloads>a.exe sample.c
umber of macros defined = 2
umber of header files included = 2
:\Users\ROJAYADAV\Downloads>