

Practical No. 6

- * Title: Text lines ending with ".com".
- * Objective: Students will learn and implement:
 - Scanner for counting web URLs.
 - Rules sections for such a scanner.
- * Description:
 - i) Create a LEX file first.
 - ii) Do initialization for count.
 - iii) Write RE for the digit and for the ~~atp~~ alphabets.
 - iv) In Rules section, write rules for counting URLs ending with ".com".
 - v) In the main body call `yyllex()` and execute the scanner for ~~at~~ required count.

Code:

```
%{
#include <stdio.h>
#include <string.h>

int count = 0;
%}

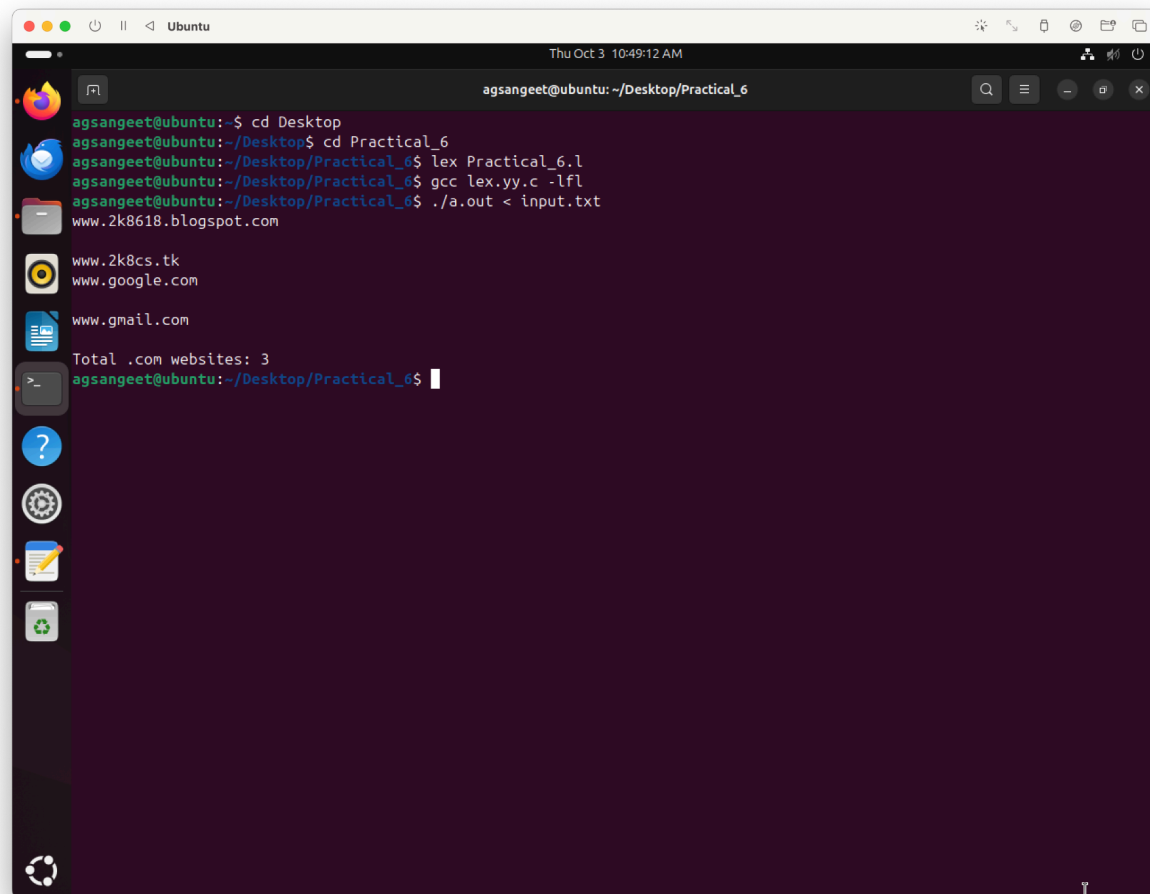
DIGIT [0-9]
ALPHA [a-zA-Z]
DOMAIN [a-zA-Z0-9.-]+
TLD \.com

%%
{DOMAIN}{TLD}
{
    printf("%s\n", yytext); // Print the matched .com website
    count++; // Increment the count for .com websites
}
%%

int main()
{
    yylex();
    printf("Total .com websites: %d\n", count);
    return 0;
}

int yywrap(void)
{
    return 1; // Return non-zero to indicate no more input files
}
```

Output:



```
agsangeet@ubuntu: ~/Desktop/Practical_6
agsangeet@ubuntu:~$ cd Desktop
agsangeet@ubuntu:~/Desktop$ cd Practical_6
agsangeet@ubuntu:~/Desktop/Practical_6$ lex Practical_6.l
agsangeet@ubuntu:~/Desktop/Practical_6$ gcc lex.yy.c -lfl
agsangeet@ubuntu:~/Desktop/Practical_6$ ./a.out < input.txt
www.2k8618.blogspot.com
www.2k8cs.tk
www.google.com
www.gmail.com
Total .com websites: 3
agsangeet@ubuntu:~/Desktop/Practical_6$
```

* Conclusion: Thus, we have implemented the Scanner for counting URLs ending with ".com".