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1. Lex program to count number of words in a given string

```
%{
    #include<stdio.h>
    int word = 0
%}
%%
[\n] { printf ("Total Number of Words : %d\n", word );
       word=0; printf ("\nEnter the string : "); }

( [a-z A-Z 0-9])* {word++;}

%%
int yywrap() { }
int main()
{
    printf ("\nEnter the string : ");
    yylex();
    return 0;
}
```

Output:

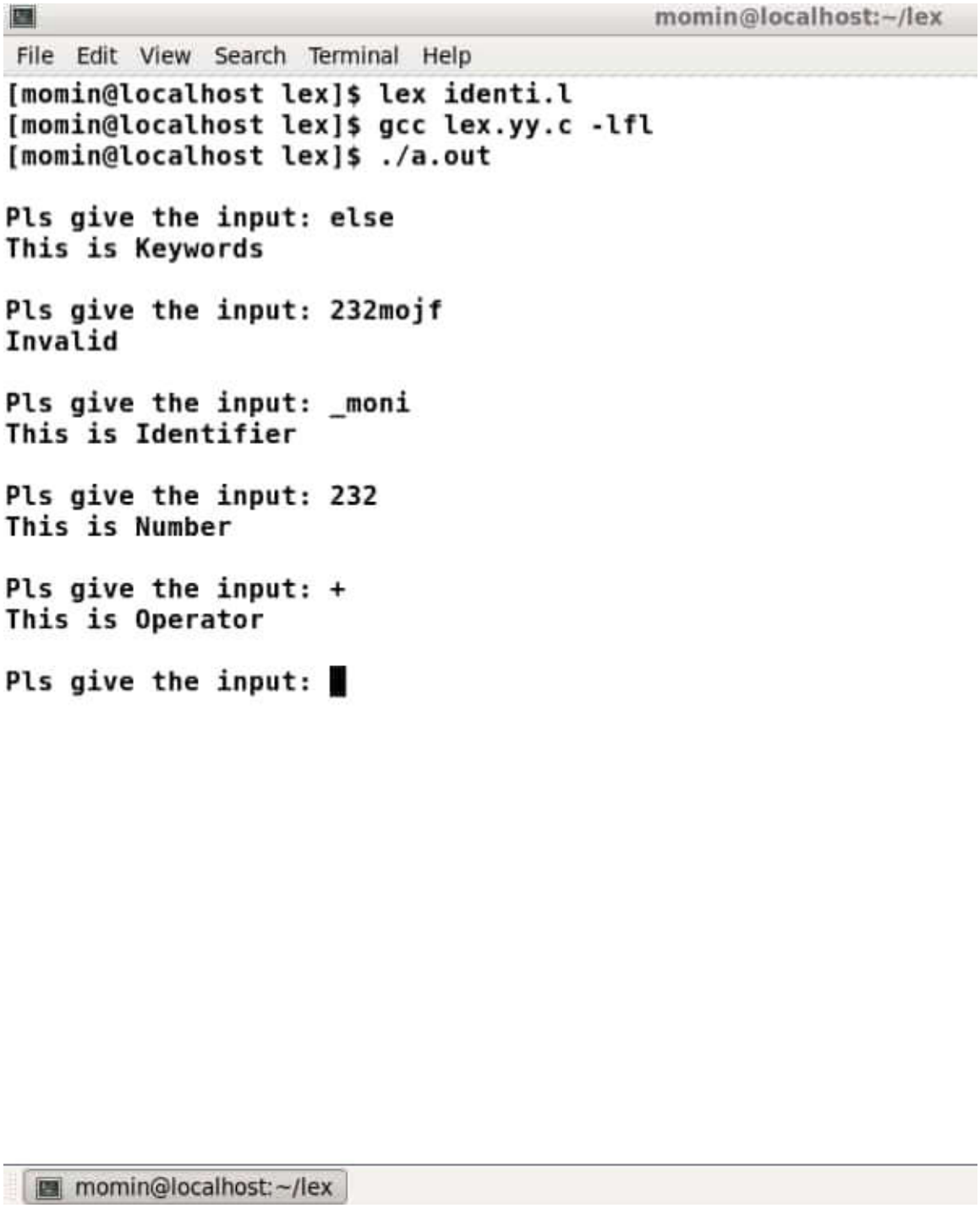
Enter the String : abdul momin Sk 01

Total Number of Words : 4


momin@localhost:~/lex
File Edit View Search Terminal Help
[momin@localhost lex]$ lex words_count.l
[momin@localhost lex]$ gcc lex.yy.c -lfl
[momin@localhost lex]$ ./a.out
Enter the string: abdul momin sk 01
Total Number of Words: 4
Enter the string:
momin@localhost:~/lex

2. Lex programs to identify identifiers, Numbers, keywords and operators used in C language.

```
%{
    #include<stdio.h>
%}
%%
[\n] { printf ("\n\n Pls.. give the input : "); }

auto| double | int | struct | break | else | long | switch | case | enum|
register| typedef |char| extern | return| union| continue| for|
signed |void |do | if | static | while| default |goto | sizeof |volatile|
const | float | short    {printf ("This is keywords"); }

[a-z A-Z _] [a-z A-Z 0-9 _]*  {printf ("This is Identifier"); }

[0-9]*  {printf("This is Number\n");}

[+ - / * % =]  {printf ("This is Opetrator");}

.*  {printf (" Invalid ");}

%%
main()
{
    printf ("\n Pls. give the input: ");
    yylex();
    return 0;
}
```


momin@localhost:~/lex
File Edit View Search Terminal Help
[momin@localhost lex]$ lex identi.l
[momin@localhost lex]$ gcc lex.yy.c -lfl
[momin@localhost lex]$ ./a.out
Pls give the input: else
This is Keywords
Pls give the input: 232mojf
Invalid
Pls give the input: _moni
This is Identifier
Pls give the input: 232
This is Number
Pls give the input: +
This is Operator
Pls give the input:
momin@localhost:~/lex

3. Lex program to check valid Mobile Numbers (10 digits)

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

%%
[\n]  {printf ("\n\n Enter mobile Number: ");}

[1-9][0-9]{9}  {printf ("Mobile Number Valid. ");}

.*  {printf ("Mobile Number Invalid.");}
%%
int main()
{
    printf ("\n Enter Mobile Number: ");
    yylex();
    return 0;
}
```

Output:

```
Enter Mobile Number : 9876543210
Mobile Number Valid.

Enter mobile Number : 09876 54321
Mobile Number Invalid.
```


momin@localhost:~/lex
File Edit View Search Terminal Help
[momin@localhost lex]$ lex valid_phone.l
[momin@localhost lex]$ gcc lex.yy.c -lfl
[momin@localhost lex]$ ./a.out
Enter mobile Number: 9876543210
Mobile number Valid.
Enter mobile Number: 0987654321
Mobile number Invalid.
Enter mobile Number: 987654
Mobile number Invalid.
Enter mobile Number:
momin@localhost:~/lex