

The screenshot shows the EditPlus Portable interface. The title bar reads "C:\Flex Windows>EditPlusPortable\line_no.l * - EditPlus". The menu bar includes File, Edit, View, Search, Document, Project, Tools, Browser, ZC, Window, Help. The toolbar has various icons for file operations like Open, Save, Find, Replace, etc. The left sidebar shows a directory tree under "[C:] Windows" with "EditPlusPortable" selected. The main editor area contains the following Lex program:

```
1 %option noyywrap
2 %
3     int line_no = 0;
4     int char_no = 0;
5
6 }
7
8 %%
9 \n    ++line_no;
10 .
11 end    return 0;
12
13 %%
14
15 int main()
16 {
17     yylex();
18     printf("number of lines = %d, number of chars = %d\n",line_no, char_no );
19
20     return 0;
21 }
```

Ex 1. Lex program to count the number of character and lines.

```
%option noyywrap
%{
    int line_no = 0;
    int char_no = 0;
%}

%%%
\n    ++line_no;
.
end    return 0;

%%%

int main()
{
    yylex();
    printf("number of lines = %d, number of chars = %d\n",line_no, char_no );
    return 0;
```

```
}
```

```
C:\Flex Windows>EditPlusPortable>lex line_no.1  
C:\Flex Windows>EditPlusPortable>gcc lex.yy.c  
C:\Flex Windows>EditPlusPortable>a.exe  
example  
how are  
you  
fine  
hello world  
number of lines = 5, number of chars = 37  
C:\Flex Windows>EditPlusPortable>
```

Ex 2. Lex program to recognize the valid Integer / Float

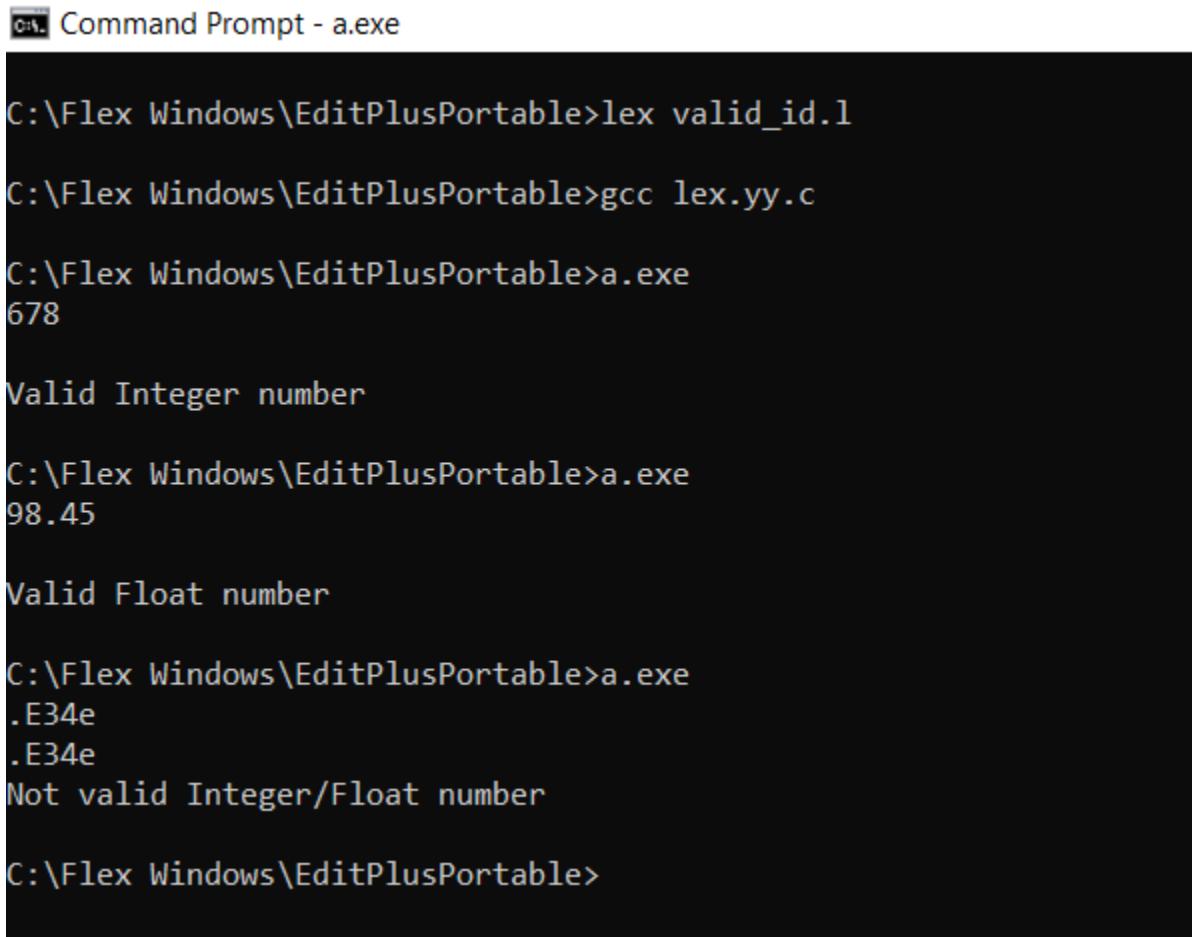
```
%option noyywrap  
%{  
    int valid_int=0, valid_float=0;  
}%  
  
%%  
  
^[-+]?[0-9]* valid_int++;  
^[-+]?[0-9]*[.][0-9]+$ valid_float++;  
.;  
  
%%  
int main()  
{  
    yylex();
```

```

    if(valid_int!=0) printf("Valid Integer number\n");
    else if(valid_float!=0) printf("Valid Float number\n");
    else printf("Not valid Integer/Float number\n");

    return 0;
}

```



```

C:\Flex Windows>EditPlusPortable>lex valid_id.l
C:\Flex Windows>EditPlusPortable>gcc lex.yy.c
C:\Flex Windows>EditPlusPortable>a.exe
678

Valid Integer number

C:\Flex Windows>EditPlusPortable>a.exe
98.45

Valid Float number

C:\Flex Windows>EditPlusPortable>a.exe
.E34e
.E34e
Not valid Integer/Float number

C:\Flex Windows>EditPlusPortable>

```

Ex 3. Lex program to recognize identifier, keyword, number and unsigned number

```

% {
    #include<stdio.h>
%
}

```

```
%%
```

```
if|else|while|int|switch|for|char {printf("keyword");}
[a-z]([a-z]|0-9)* {printf("identifier");}
[0-9]* {printf("number");}
[0-9]+(.[0-9]+)?(E[+|-]?[0-9])? {printf("unsigned number");}
.* { printf ("invalid"); }
```

```
%%
```

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

Ex 4. Lex program to determine whether the input is “C Identifier or not”.

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

```
%%
```

```
^[a-zA-Z_][a-zA-Z0-9_]* { printf("Valid Identifier"); }
[^a-zA-Z_] { printf("Invalid Identifier"); }
.;
```

```
%%
```

```
int main()
{
```

```
yylex();  
return 0;  
}
```