5a. Program to recognize and count the number of identifiers in a given input file.

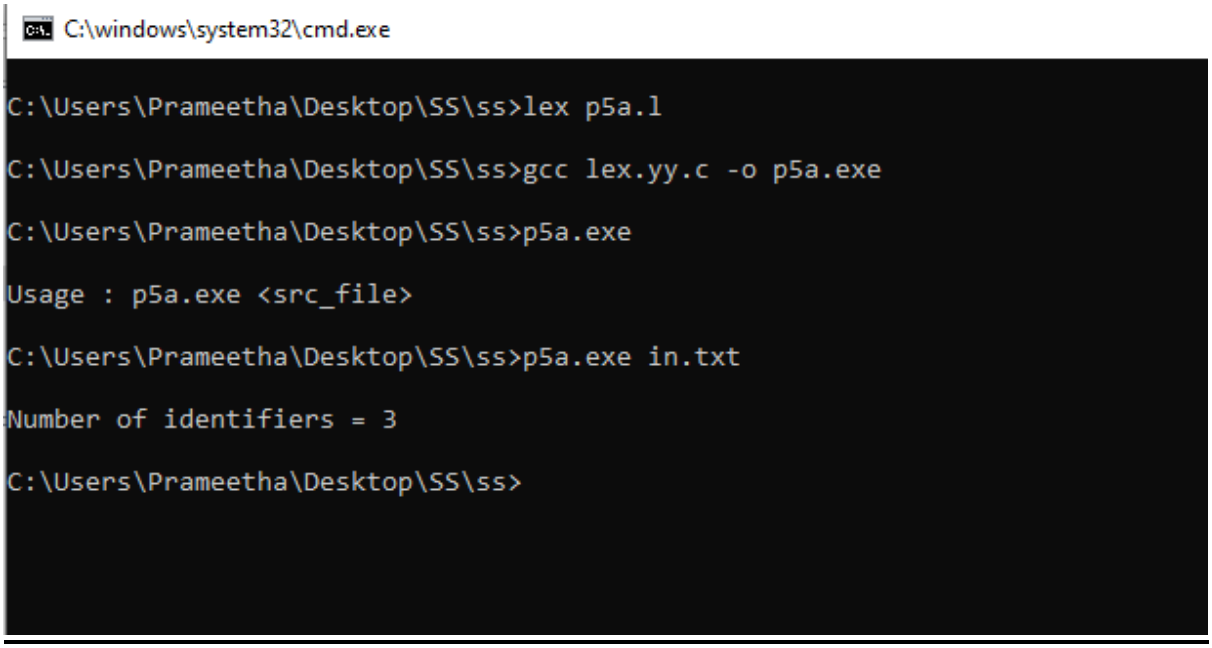
```
%{
#include<stdio.h>
int idc=0;
%}

e[=][   ]*[0-9]+
ws[   \n\t]*
id[_a-zA-Z][_a-zA-Z0-9]*
decln   "int"|"float"|"char"|"double"|"short"|"long"|"unsigned"

%x defn

%%
{decln}                         {BEGIN defn;}
<defn>{ws}{id}{ws}\,            {idc++;}
<defn>{ws}{id}{ws}\;            {BEGIN 0;idc++;}
<defn>{ws}{id}{ws}{e}{ws}\,     {idc++;}
<defn>{ws}{id}{ws}{e}{ws}\;     {BEGIN 0;idc++;}
<*>\n           ;
<*>.            ;
%%

int yywrap() {   }

int main(int argc,char *argv[])
{
```

```
if(argc==2)
{
        yyin=fopen(argv[1],"r");
        yylex();
        printf("\nNumber of identifiers = %d\n",idc);
}
else
{
        printf("\nUsage : %s   <src_file> \n",argv[0]);
}
return 0;
}
```

Commands for execution

```
lex pgm_name.l
gcc lex.yy.c -o pgm_name.exe
pgm_name.exe file.txt
```

Output


C:\windows\system32\cmd.exe
C:\Users\Prameetha\Desktop\SS\ss>lex p5a.l
C:\Users\Prameetha\Desktop\SS\ss>gcc lex.yy.c -o p5a.exe
C:\Users\Prameetha\Desktop\SS\ss>p5a.exe
Usage : p5a.exe <src_file>
C:\Users\Prameetha\Desktop\SS\ss>p5a.exe in.txt
Number of identifiers = 3
C:\Users\Prameetha\Desktop\SS\ss>