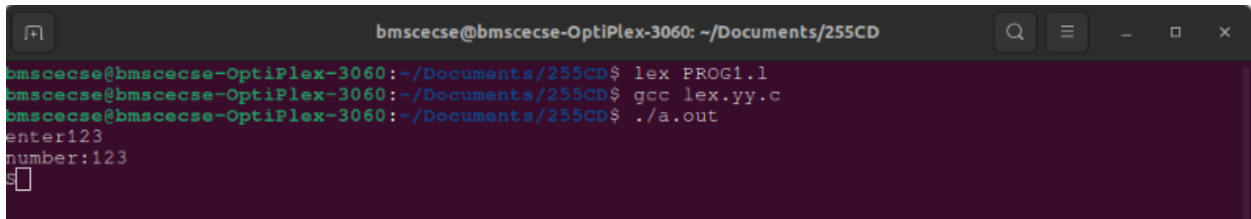


Program 1

```
%option noyywrap
%{
#include<stdio.h>
%}
%%
[0-9]+ {printf("number:%s\n",yytext);}
[+-] {printf("operator:%s\n",yytext);}
[ \t\n] { /*ignore whitespaces and newline*/}
[a-zA-Z]* {printf("invalid character:%s\n",yytext);}
%%

int main()
{
printf("enter");
yylex();
return 0;
}
```

OUTPUT



```
bmscscse@bmscscse-OptiPlex-3060: ~/Documents/255CD
bmscscse@bmscscse-OptiPlex-3060:~/Documents/255CD$ lex PROG1.l
bmscscse@bmscscse-OptiPlex-3060:~/Documents/255CD$ gcc lex.yy.c
bmscscse@bmscscse-OptiPlex-3060:~/Documents/255CD$ ./a.out
enter123
number:123
█
```

Program 2

```
%{
#include<stdio.h>
int c=0;
%}
%%
[a-zA-Z0-9]+ {c++;}
\n {printf("the count is %d",c);}
%%

int yywrap()
{
}

int main()
{
printf("enter the sentence");
yylex();
}
```

```
return 0;
}
```

```
bmscecse@bmscecse-OptiPlex-3060: ~/Documents/255CD

bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ lex prog2.l
bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ gcc lex.yy.c
bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ ./a.out
enter the sentencehi bro
the count is 2
```

PROG 3

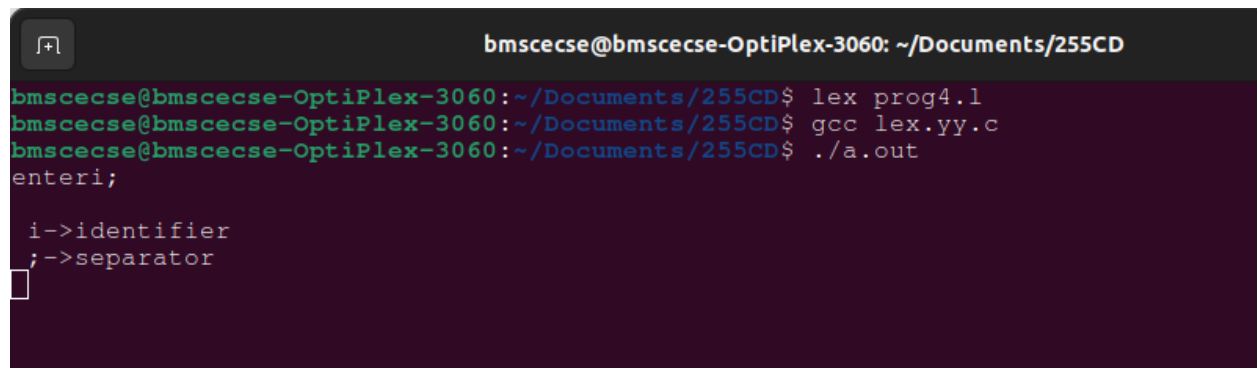
```
%{
#include<stdio.h>
int vow_count=0;
int const_count=0;
%}
%%
[aeiouAEIOU] {vow_count++;}
[a-zA-Z] {const_count++;}
\n {printf("vow_count=%d,const_count=%d",vow_count,const_count);}
%%
int yywrap()
{
}
int main()
{
printf("enter the string of vowels and consonants:");
yylex();
return 0;
}
```

```
bmscecse@bmscecse-OptiPlex-3060: ~/Documents/255CD

bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ lex PROG3.l
bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ gcc lex.yy.c
bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ ./a.out
enter the string of vowels and consonants:happybirthday
vow_count=3,const_count=10
```

program 4

```
%option noyywrap
%{
#include<stdio.h>
%}
%%
int|char|float {printf("\n%s->keyword",yytext);}
,|; {printf("\n %s->separator",yytext);}
[a-zA-Z0-9]* {printf("\n %s->identifier",yytext);}
%%
int wrap()
{
}
int main()
{
printf("enter");
yylex();
return 0;
}
```



```
bmscecse@bmscecse-OptiPlex-3060: ~/Documents/255CD
bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ lex prog4.1
bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ gcc lex.yy.c
bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ ./a.out
enteri;

i->identifier
;->separator
```

program 5

```
%%
. ECHO;
%%
int yywrap(void)
{
}
int main(void)
{
yylex();
return 0;
}
```



bmscecse@bmscecse-OptiPlex-3060: ~/Documents/255CD

```
bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ lex prog5.1
bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ gcc lex.yy.c
bmscecse@bmscecse-OptiPlex-3060:~/Documents/255CD$ ./a.out
hellohappyworld
hellohappyworld
```

