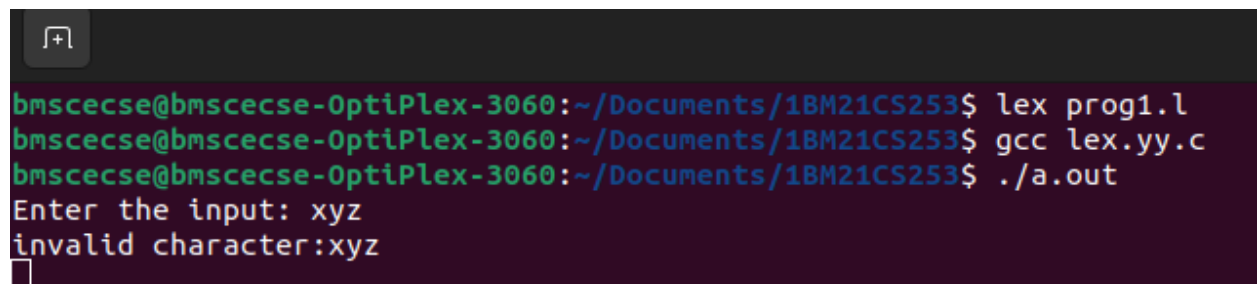


Program 1

```
%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 the input: ");
yylex();
return 0;
}
```

OUTPUT



```
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ lex prog1.l
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ gcc lex.yy.c
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ ./a.out
Enter the input: xyz
invalid character:xyz
```

Program 2

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

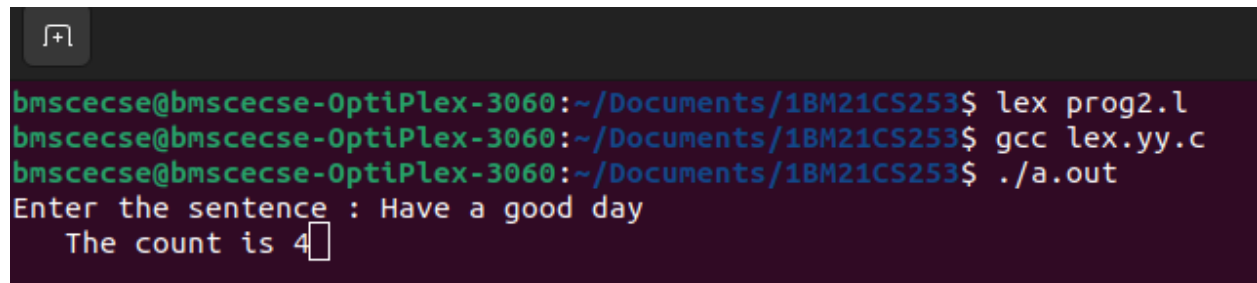
int yywrap()
{
}
```

```

int main()
{
printf("Enter the sentence : ");
yylex();
return 0;
}

```

OUTPUT



```

bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ lex prog2.l
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ gcc lex.yy.c
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ ./a.out
Enter the sentence : Have a good day
    The count is 4

```

Program 3

```

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

```

OUTPUT

```
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ lex prog3.l
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ gcc lex.yy.c
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ ./a.out
Enter the string of vowels and consonants: Good Morning
Vowels count is=4, Consonants count is=7
```

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 the input : ");
yylex();
return 0;
}
```

OUTPUT

```
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ lex prog4.l
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ gcc lex.yy.c
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ ./a.out
Enter the input : int,variable,float

int->keyword
,->separator
variable->identifier
,->separator
float->keyword
█
```

Program 5

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

OUTPUT

```
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ lex prog5.l
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ gcc lex.yy.c
bmscecse@bmscecse-OptiPlex-3060:~/Documents/1BM21CS253$ ./a.out
Yashaswini G A
Yashaswini G A
█
```