Day 1:

1.)%{

%}

%%

[A-Z] {printf("%c",yytext[0]);}

. {}

%%

int yywrap(){}

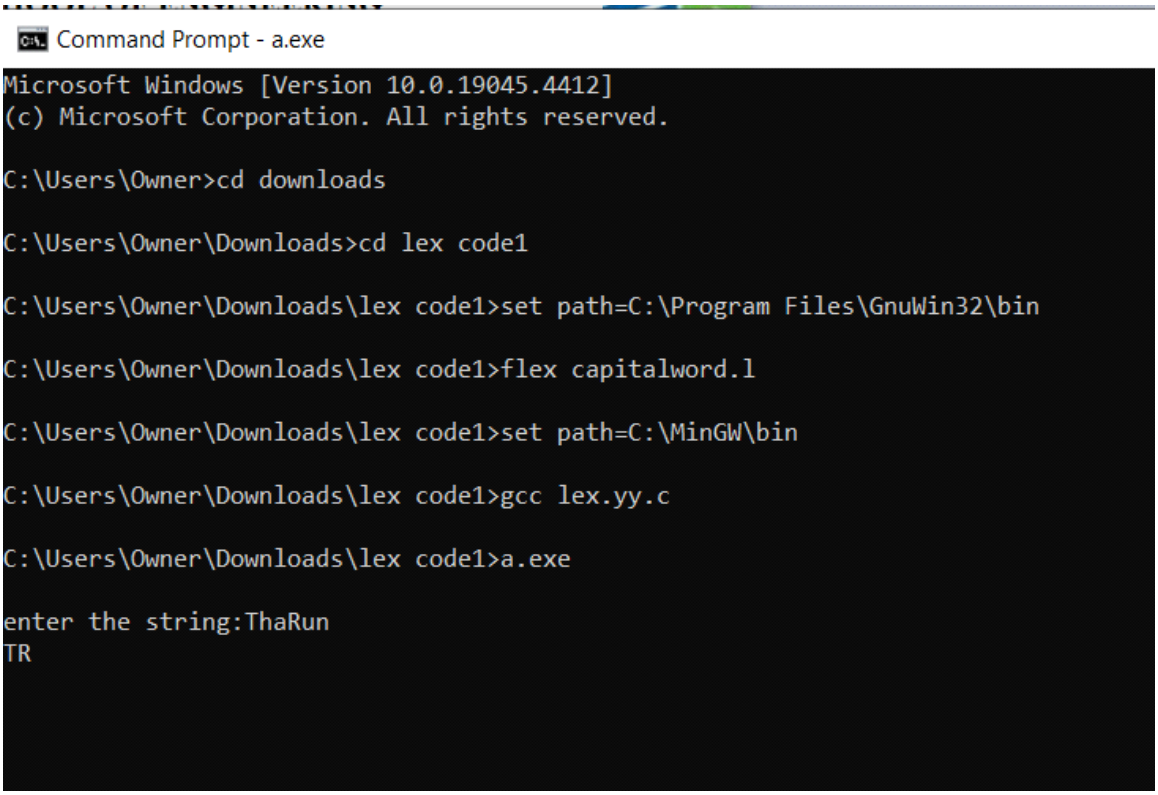
int main()

{

printf("¥nenter the string:");

yylex();

}



2.)

```
%{
#include<stdio.h>
%}
%%
[0-9]+ {printf("%s,is a digit",yytext);}
.+ {printf("it is not digit");}
%%
int main()
{
printf("¥n enter the digit:");
```

yylex();

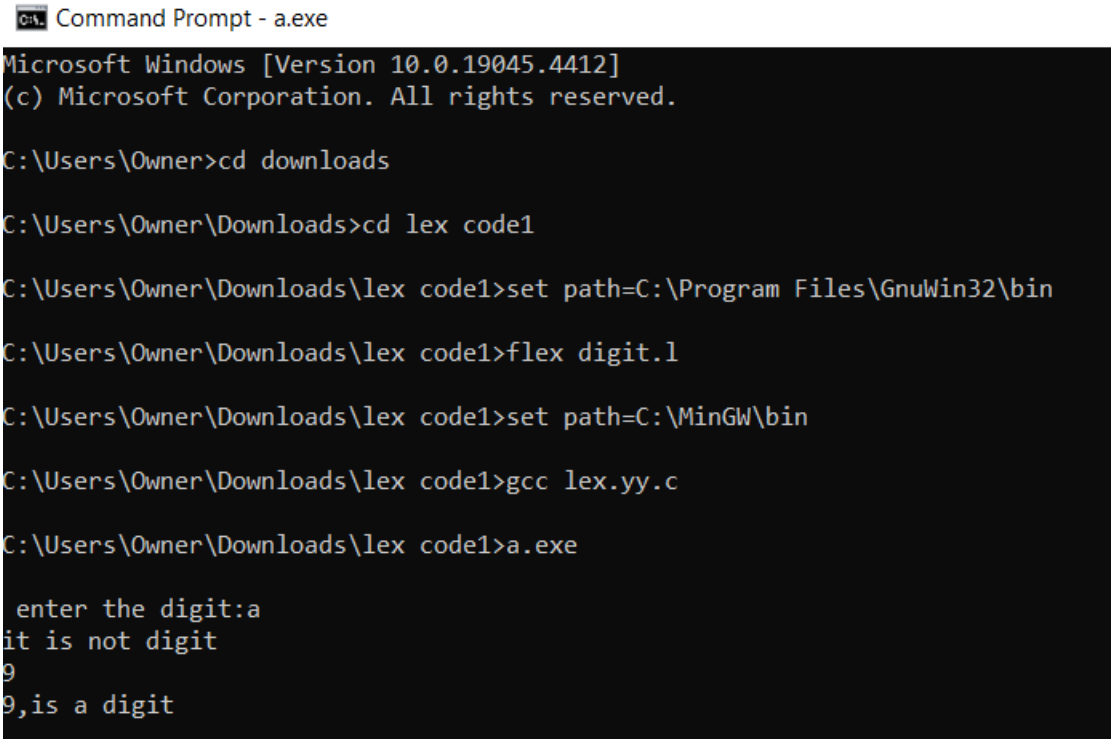
}

int yywrap()

{

return 1;

}



3.)%%

[1-9][0-9]{9} {printf("¥nmobile number is valide:");}

.+ {printf("¥nmobile number is invalide:");}

%%

int main()

{

printf("enter the number:");

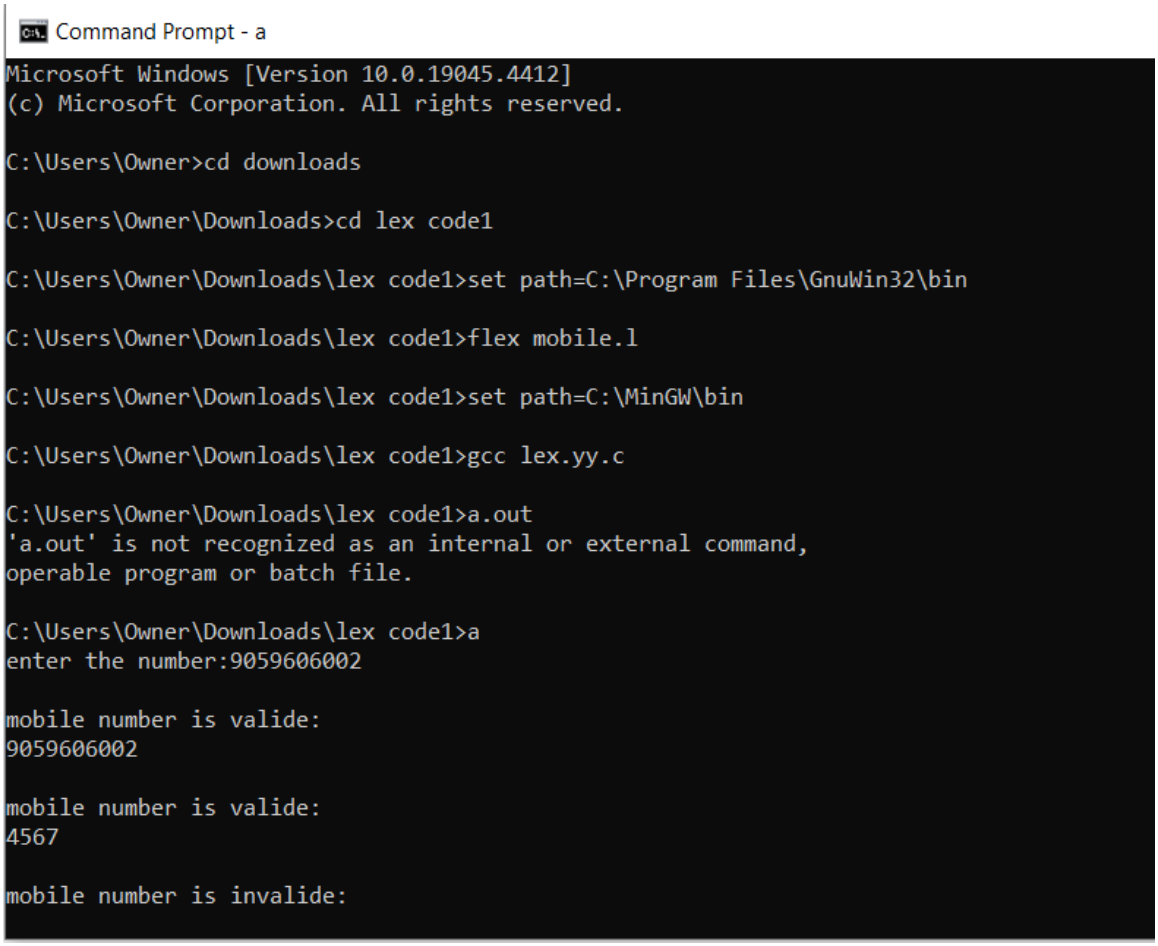
yylex();

return 0;

}

int yywrap()

{}



4.)%{

int vow_count=0;

int const_count=0;

%}

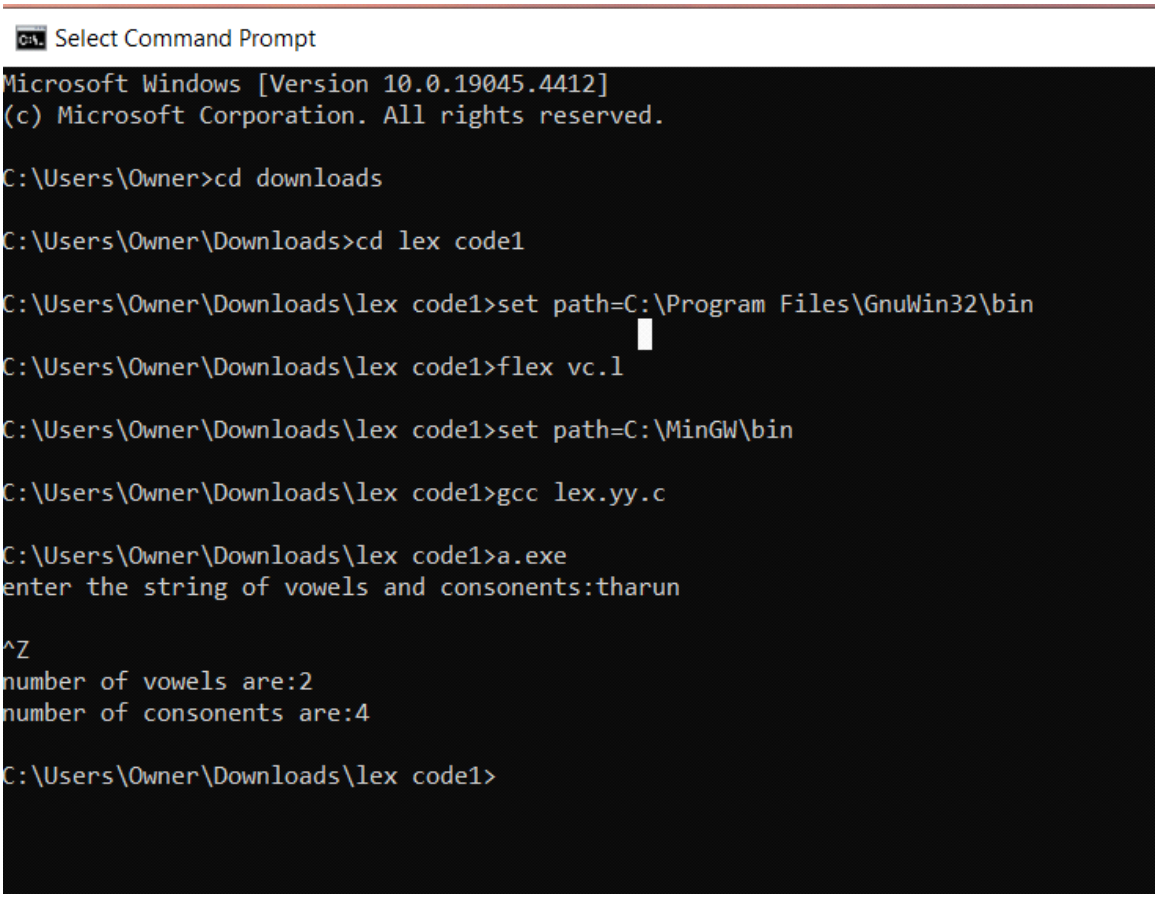
```
%%

[aeiouAEIOU] {vow_count++;}

[a-zA-Z] {const_count++;}

%%

int yywrap(){}
int main()
{
printf("enter the string of vowels and consonents:");
yylex();
printf("number of vowels are:%d¥n",vow_count);
printf("number of consonents are:%d¥n",const_count);
return 0;
}
```



5.)

%{

%}

%%

[a-zA-Z][a-zA-Z0-9]+ {printf("¥n is identifier",yytext);}

.+ {printf("¥n%s is Keyword",yytext);}

%%

int yywrap(){}

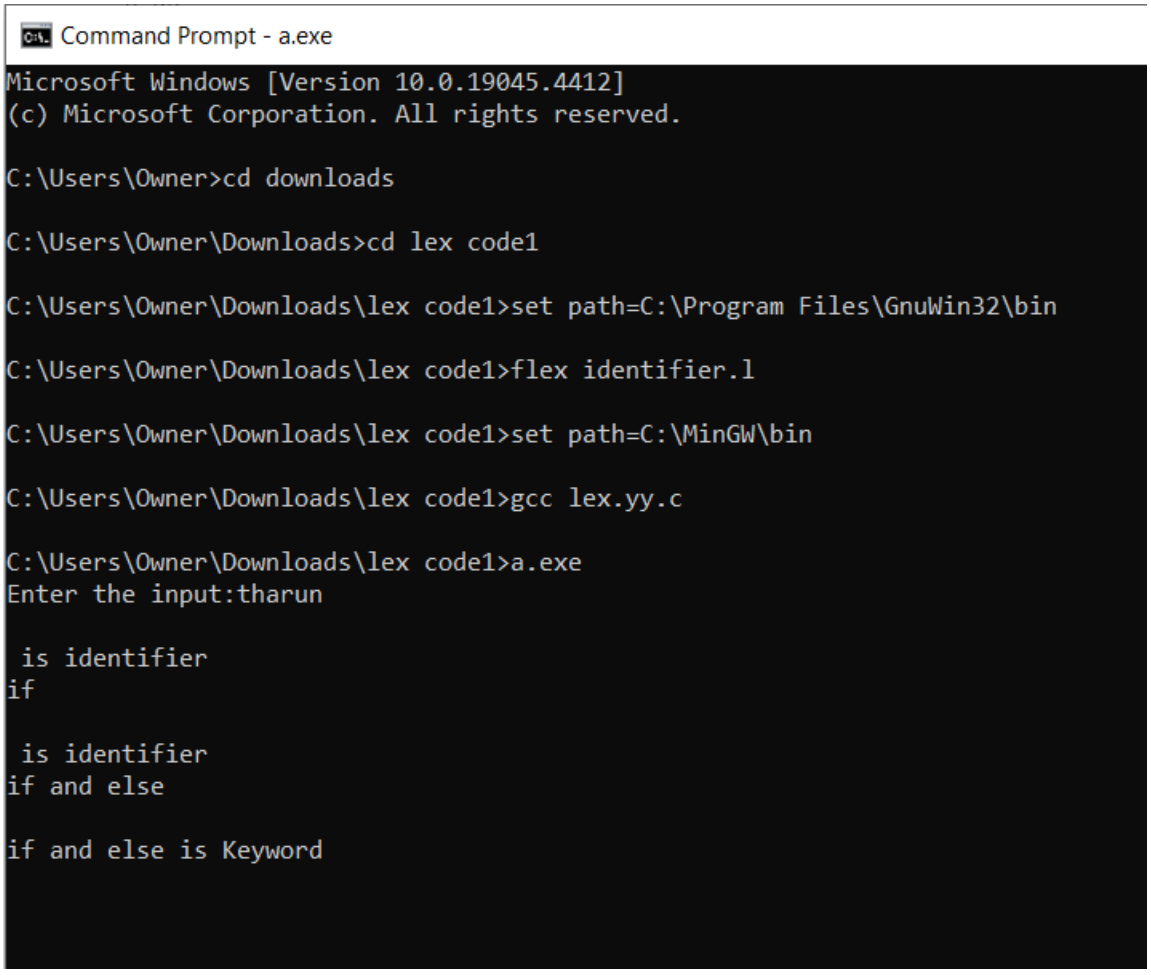
int main()

{

printf("Enter the input:");

yylex();

}



6.)%{

int positive_count = 0;

int negative_count = 0;

%}

DIGIT [0-9]

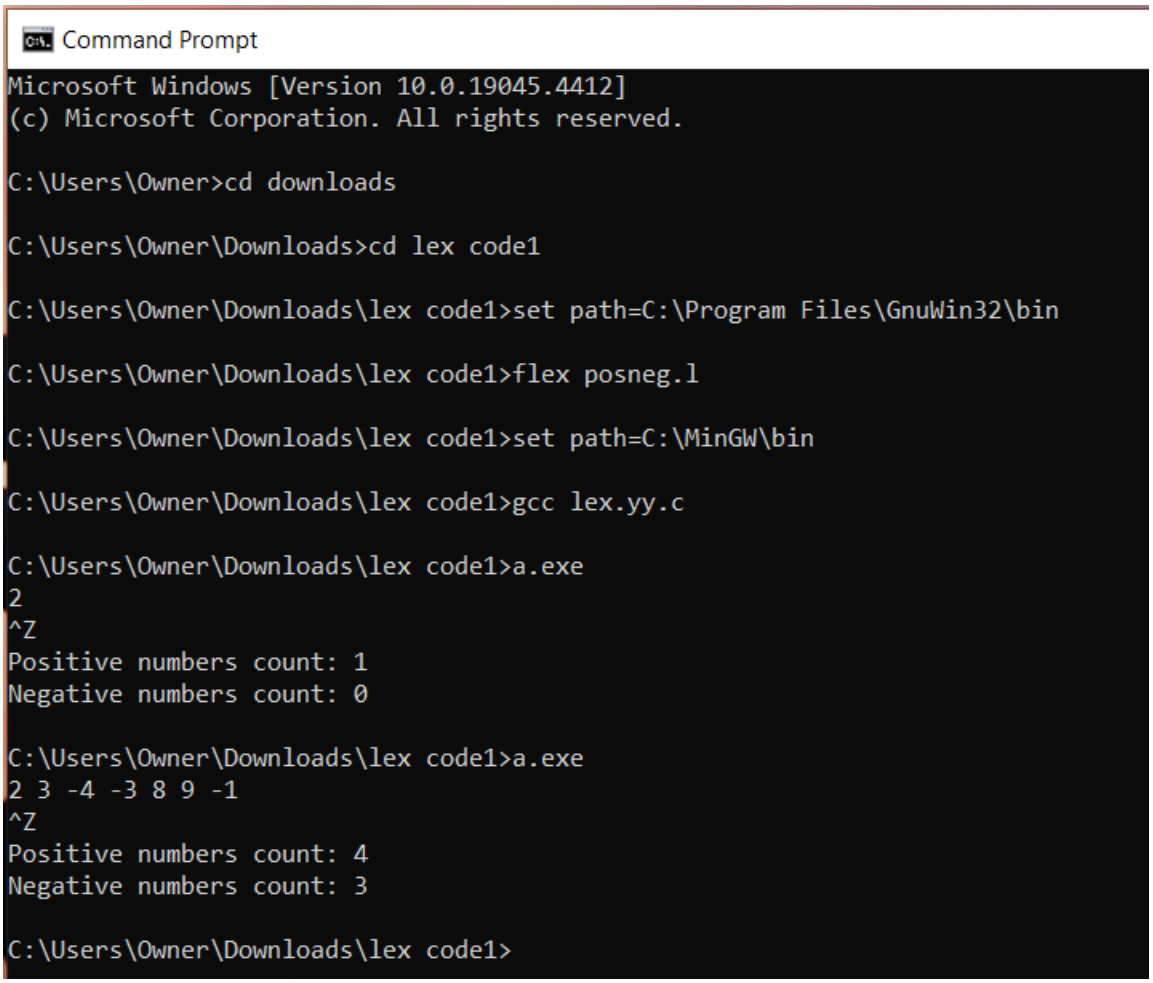
SIGN [-+]

```
%%
{SIGN}?{DIGIT}+         {
                            int num = atoi(yytext);
                            if (num > 0)
                                positive_count++;
                            else if (num < 0)
                                negative_count++;
                        }
.|¥n                    ; /* ignore any other characters */

%%

int yywrap() {
    return 1; // Indicate end of input
}

int main(int argc, char **argv) {
    yylex();
    printf("Positive numbers count: %d¥n", positive_count);
    printf("Negative numbers count: %d¥n", negative_count);
    return 0;
}
```



8.)%{

#include <stdio.h>

%}

VOWEL [aeiouAEIOU]

LETTER [a-zA-Z]

%%

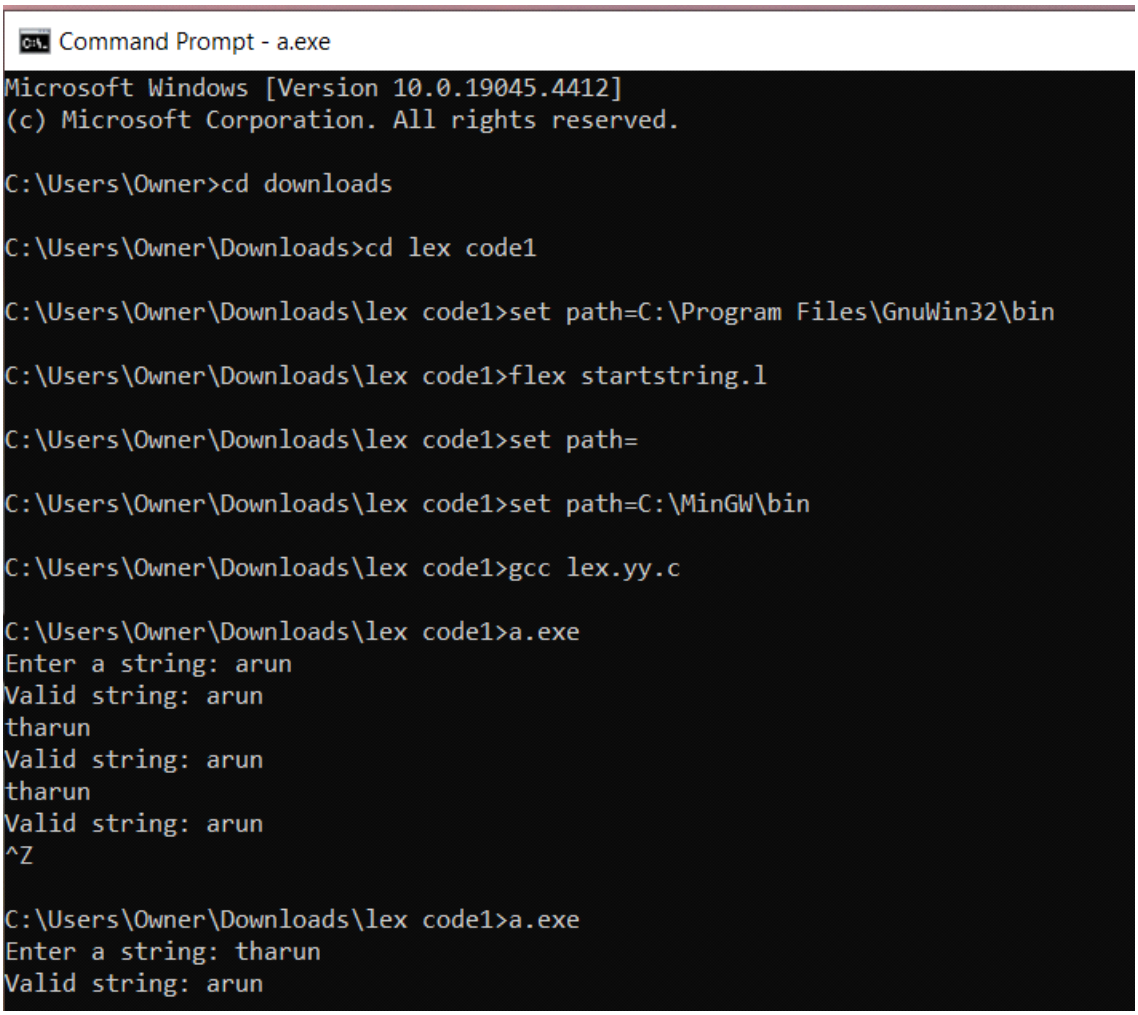
{VOWEL}{LETTER}* { printf("Valid string: %s¥n", yytext); }

```
.|¥n                    ; /* ignore any other characters */

%%

int yywrap() {
    return 1; // Indicate end of input
}

int main(int argc, char **argv) {
    printf("Enter a string: ");
    yylex();
    return 0;
}
```


Command Prompt - a.exe
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Owner>cd downloads
C:\Users\Owner\Downloads>cd lex code1
C:\Users\Owner\Downloads\lex code1>set path=C:\Program Files\GnuWin32\bin
C:\Users\Owner\Downloads\lex code1>flex startstring.l
C:\Users\Owner\Downloads\lex code1>set path=
C:\Users\Owner\Downloads\lex code1>set path=C:\MinGW\bin
C:\Users\Owner\Downloads\lex code1>gcc lex.yy.c
C:\Users\Owner\Downloads\lex code1>a.exe
Enter a string: arun
Valid string: arun
tharun
Valid string: arun
tharun
Valid string: arun
^Z
C:\Users\Owner\Downloads\lex code1>a.exe
Enter a string: tharun
Valid string: arun