```
1.)%{
#include <stdio.h>
#include <string.h>
int maxLength = 0;
int currentLength = 0;
%}
%%
[a-zA-Z]+\{
   currentLength = yyleng;
   if (currentLength > maxLength) {
       maxLength = currentLength;
   }
}
[^a-zA-Z]+; // Ignore non-alphabetic characters
%%
```

```
int main() {
    yylex();
    printf("The length of the longest word is: %d\n", maxLength);
    return 0;
}
int yywrap() {
    return 1;
}
 Command Prompt
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 length.l
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
hello world
The length of the longest word is: 5
C:\Users\Owner\Downloads\lex code1>a.exe
12345
The length of the longest word is: 0
C:\Users\Owner\Downloads\lex code1>
```

```
%}
%%
((http)|(ftp))s?: \[ (a-zA-Z0-9]{2}(\.[a-z]{2}) + (\[ (a-zA-Z0-9+=?]*)* 
{printf("\nURL InValid\n");}
.+ {printf("\nURL valid\n");}
%%
int yywrap(){}
void main()
{
   printf("\nEnter the URL:");
   yylex();
   printf("\n");
 Command Prompt - a.exe
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.
  :\Users\Owner>cd downloads
  :\Users\Owner\Downloads>cd lex code1
  :\Users\Owner\Downloads\lex code1>set path=C:\Program Files\GnuWin32\bin
  :\Users\Owner\Downloads\lex code1>flex url.l
 :\Users\Owner\Downloads\lex code1>set path=C:\MinGW\bin
  :\Users\Owner\Downloads\lex code1>gcc lex.yy.c
 :\Users\Owner\Downloads\lex code1>a.exe
Enter the URL:https://www.google.com/search?q=url&rlz=1C1CHBD_enUS972US972&oq=url&gs_lcrp=EgZjaHJvbWUyFAgAEEUYORhDGIMBGL
EDGIAEGIoFMhIIARAAGEMYgwEYsQMYgAQYigUyDwgCEAAYQxixAxiABBiKBTIMCAMQABhDGIAEGIoFMg0IBBAAGIMBGLEDGIAEMhIIBRAAGEMYgwEYsQMYgA
QYigUyDwgGEAAYQxixAxiABBiKBTISCAcQABhDGIMBGLEDGIAEGIoFMgcICBAAGI8CMgcICRAAGI8C0gEJNDc2OWoxajE1qAIMsAIB&sourceid=chrome&i
URL valid
```

```
#include<stdio.h>
%}
%%
\hbox{$[0$-9][0$-9]/[0$-1][0$-9]/[1$-2][0$-9]{3} {printf("valid");}}
.+ {printf("invalid");}
%%
int yywrap(){}
int main()
 yylex();
Command Prompt - a.exe
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.
 :\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 dob.l
C:\Users\Owner\Downloads\lex code1>set path=C:\MinGW\bin
 :\Users\Owner\Downloads\lex code1>gcc lex.yy.c
 :\Users\Owner\Downloads\lex code1>a.exe
19/06/2005
valid
```

```
4.)%{
#include<stdio.h>
%}
%%
"="|"+"|"-"|"/"|"*" {printf("valid");}
.+ {printf("invalid");}
%%
int yywrap(){}
int main()
{
    printf("Enter the input:");
    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 mo.l
C:\Users\Owner\Downloads\lex code1>set path=C:\MinGW\bin
C:\Users\Owner\Downloads\lex code1>ggcc lex.yy.c
'ggcc' is not recognized as an internal or external command,
operable program or batch file.
C:\Users\Owner\Downloads\lex code1>gcc lex.yy.c
C:\Users\Owner\Downloads\lex code1>a.exe
Enter the input:+
valid
invalid
invalid
valid
5.)%{
%}
%%
[a-z.0-9_]+@[a-z]+".com"|".in" {printf("it is valid");}
.+ {printf("it is not valid");}
%%
int yywrap(void)
{}
int main()
{
```

```
printf("enter the mail:");
yylex();
}
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 email.l
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 the mail:tharun456@gmail.com
it is valid
@tharungmail
it is not valid
6.)%{
%}
%%
[a-z] {printf("%c",yytext[0]-32);}
. {}
%%
int yywrap(void){}
int main()
{
printf("\nenter the string:");
```

```
yylex();
}

Command Prompt - a.exe

Microsoft Windows [Version 10.0.19045.4412]
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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 substring.1

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 the string:abc

ABC
```