

MIHIR GHARAT

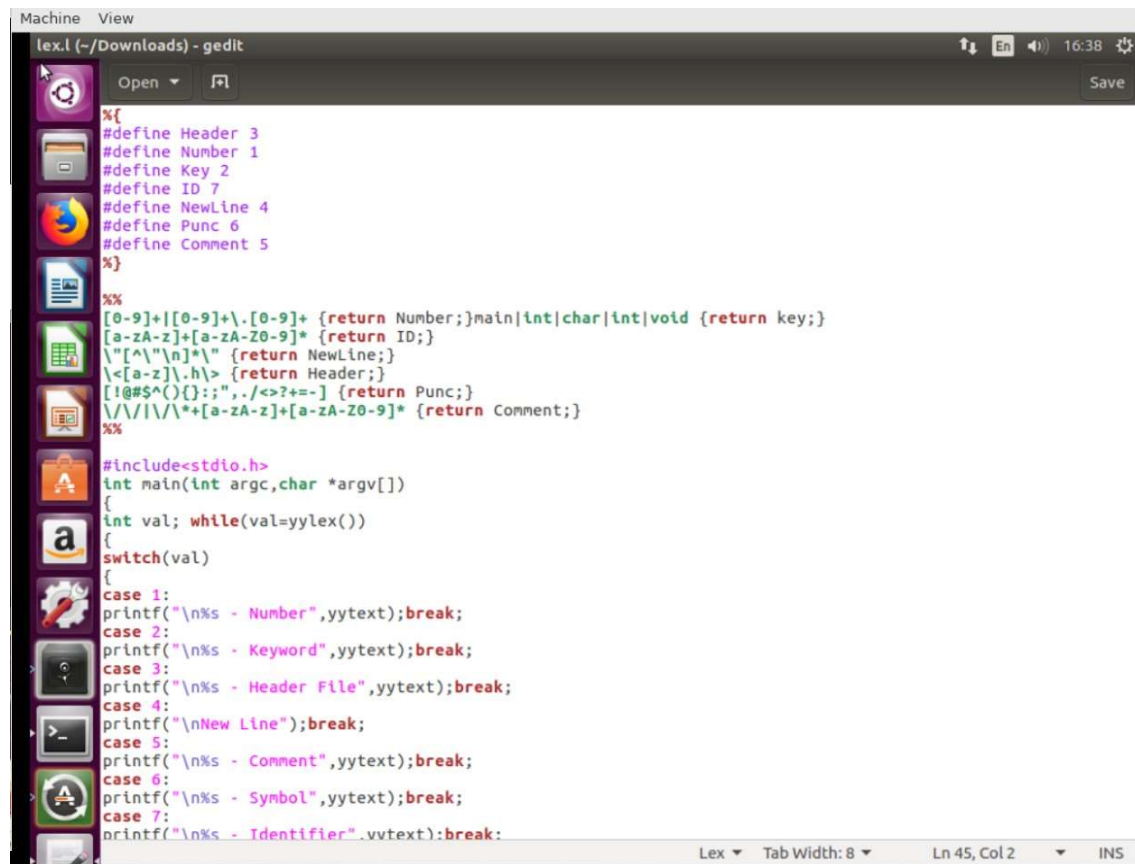
OUTPUTS:

Sudo apt-get update

Sudo apt-get install flex

Cd Downloads

Gedit lex.l



```
lex.l (~/.Downloads) - gedit
%{
#define Header 3
#define Number 1
#define Key 2
#define ID 7
#define NewLine 4
#define Punc 6
#define Comment 5
%}

%%
[0-9]+|[0-9]+\.[0-9]+ {return Number;}main|[a-zA-Z0-9]+ {return ID;}
\"[^\"]\" {return NewLine;}
\\<[a-z]\\h\\> {return Header;}
[!@#$%^&*(){};\"',./<>?+=-] {return Punc;}
\\/\\/\\/\\/\\+*[a-zA-Z]+[a-zA-Z0-9]* {return Comment;}
%%

#include<stdio.h>
int main(int argc,char *argv[])
{
int val; while(val=yylex())
{
switch(val)
{
case 1:
printf("\\n%s - Number",yytext);break;
case 2:
printf("\\n%s - Keyword",yytext);break;
case 3:
printf("\\n%s - Header File",yytext);break;
case 4:
printf("\\nNew Line");break;
case 5:
printf("\\n%s - Comment",yytext);break;
case 6:
printf("\\n%s - Symbol",yytext);break;
case 7:
printf("\\n%s - Identifier",yytext);break;
}
```

Machine View

lex.l (~/.Downloads) - gedit

Open Save

```
#define NewLine 4
#define Punc 6
#define Comment 5
}%

%%
[0-9]+|[0-9]+\.[0-9]+ {return Number;}main|int|char|int|void {return key;}
[a-zA-z]+[a-zA-Z0-9]* {return ID;}
\"[^\"]\\n\" {return NewLine;}
\\<[a-z]\\.[h]> {return Header;}
[!@#$%^&{};:;\"./<?+=-] {return Punc;}
\\//\\//\\/+*[a-zA-z]+[a-zA-Z0-9]* {return Comment;}
%%

#include<stdio.h>
int main(int argc,char *argv[])
{
    int val; while(val=yylex())
    {
        switch(val)
        {
            case 1:
                printf(\"\\n%s - Number\",yytext);break;
            case 2:
                printf(\"\\n%s - Keyword\",yytext);break;
            case 3:
                printf(\"\\n%s - Header File\",yytext);break;
            case 4:
                printf(\"\\nNew Line\");break;
            case 5:
                printf(\"\\n%s - Comment\",yytext);break;
            case 6:
                printf(\"\\n%s - Symbol\",yytext);break;
            case 7:
                printf(\"\\n%s - Identifier\",yytext);break;
            default:
                printf(\"Invalid\");break;
        }
    }
}
```

Lex Tab Width: 8 Ln 45, Col 2 INS

Machine View

onworks@onworks-Standard-PC-i440FX-PIIX-1996: ~/Downloads

```
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~$ cd Downloads
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/Downloads$ flex lex.l
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/Downloads$ gcc lex.yy.c
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/Downloads$ ./a.out
int main(){int a;int b;a=a+b;printf(\"a=\",%d,\\n);return 0;}

int - Keyword
main - Keyword
( - Symbol
) - Symbol
{ - Symbol
int - Keyword
a - Identifier
; - Symbol
int - Keyword
b - Identifier
; - Symbol
a - Identifier
= - Symbol
a - Identifier
+ - Symbol
b - Identifier
; - Symbol
printf - Identifier
( - Symbol
New Line
, - Symbol%
d - Identifier
, - Symbol
\\n - Identifier
) - Symbol
; - Symbol
return - Identifier
0 - Number
; - Symbol
} - Symbol
```