NAME: KSHITIJ GUPTA
Enrolment Number: 21162101007
Sub: CD

Practical – 5[Batch-71]

Test File Code:

```
#include<stdio.h>
#include<conio.h>
void main()
{
//Declaration of variable
int a,b=1000,c,i=10;
char x,y;
char a='x';
float p=10.2,q=20.5;
scanf("%d %d",&a,&b);
/*
Addition of Two number
*/
c=a+b;
printf("Sum:%d",c);

//Comment1
if(a>b)
{
printf("a is max");
}
else
{
printf("b is max");
}
a=b++ + c++;
a+=b;
b=c&&a;

//print 1 to 100
```

```
for(i=1;i<100;i++)
{
printf("%d",i);
}

}
```

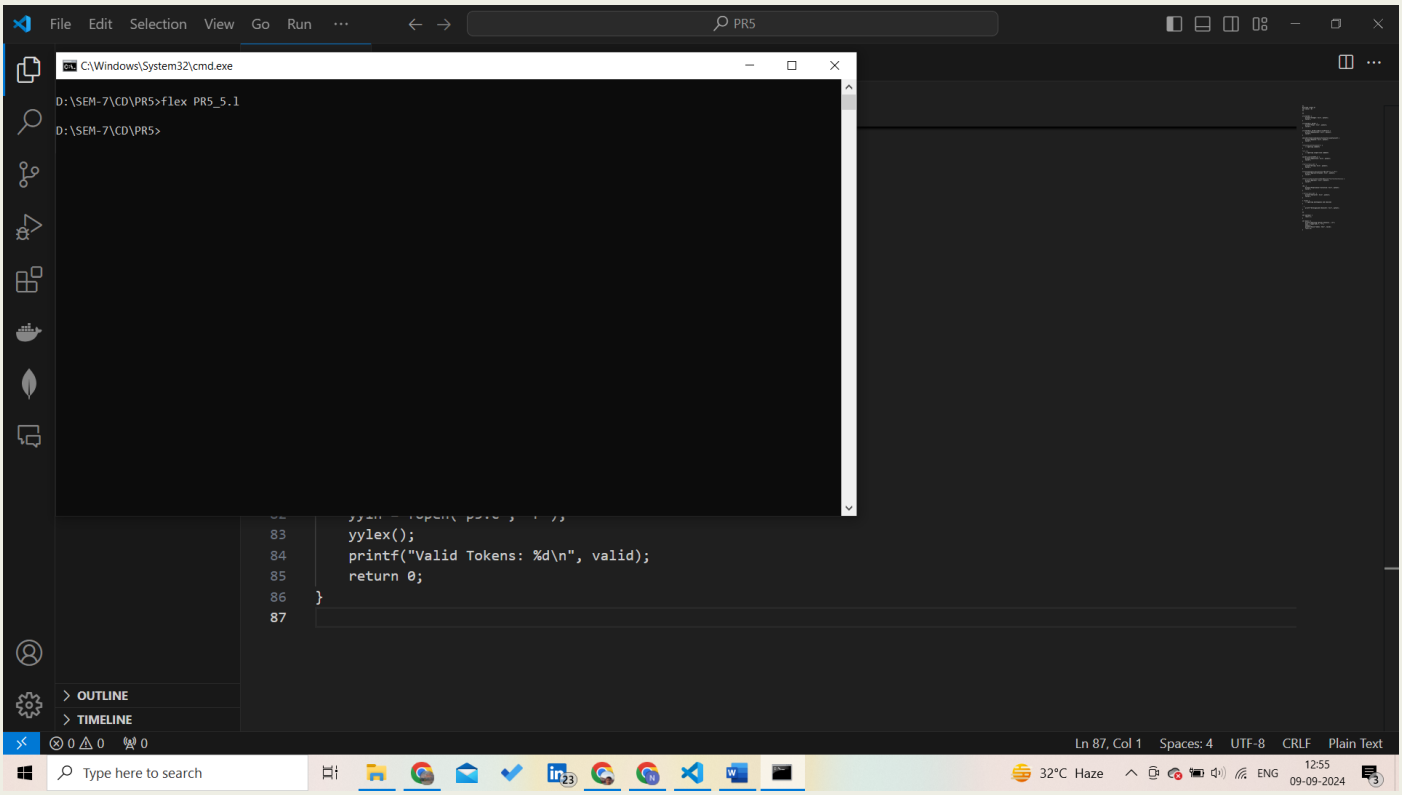
Source Code:

```
%{
#include <stdio.h>
int valid = 0;
%}

%%

[+-]?[0-9]+ {
   printf("Integer: %s\n", yytext);
   valid++;
}

[+-]?[0-9]*\.[0-9]+ {
   printf("Float: %s\n", yytext);
   valid++;
}

[+-]?[0-9]*\.[0-9]+([eE][+-]?[0-9]+)? {
   printf("Exponential: %s\n", yytext);
   valid++;
```

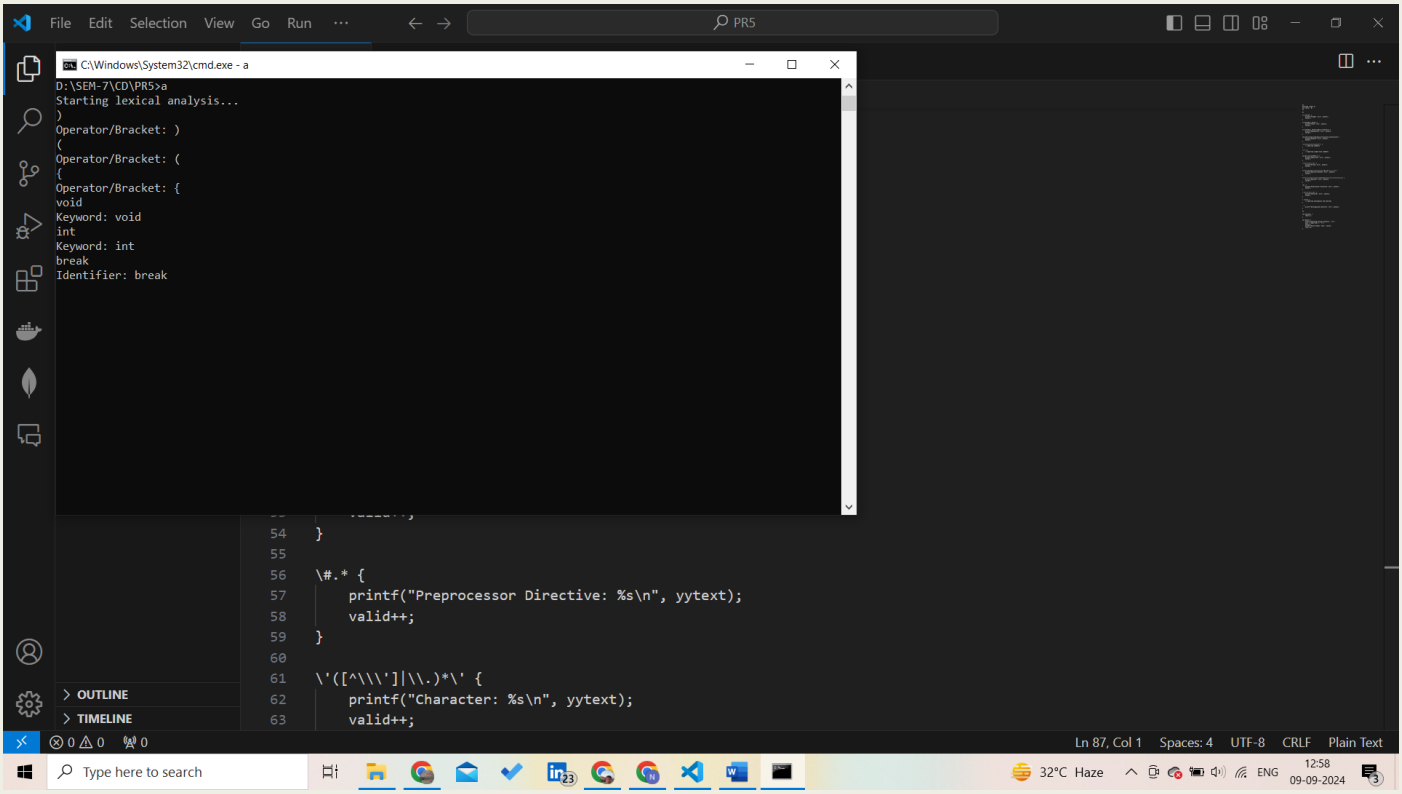
```
}

int|char|float|void|main|if|else|for|scanf|printf {
   printf("Keyword: %s\n", yytext);
   valid++;
}

"/*"([^*]|\*+[^*/])*\*+"/" {
   // Ignoring comments
}

"//".* {
   // Ignoring single-line comments
}

[a-zA-Z_][a-zA-Z0-9_]* {
   printf("Identifier: %s\n", yytext);
   valid++;
}

\"([^\\\"]|\\.)*\" {
   printf("String: %s\n", yytext);
   valid++;
}

[\(\)\[\]\{\}\+\-\*\/\=\>\<\!\&\|\%\^\;\,\.\?] {
   printf("Operator/Bracket: %s\n", yytext);
   valid++;
```

```
}

\+\+|\-\-|\+=|-=|\*=|\/=|%=|\&=|\|=|\^=|\!=|\>=|\<=|\|\| {
   printf("Operator: %s\n", yytext);
   valid++;
}

\#.* {
   printf("Preprocessor Directive: %s\n", yytext);
   valid++;
}

\'([^\\\']|\\.)*\' {
   printf("Character: %s\n", yytext);
   valid++;
}

[ \t\n]+ {
   // Ignoring whitespaces and newlines
}

. {
   printf("Unrecognized Character: %s\n", yytext);
}

%%

int yywrap() {
```

```
    return 1;
}

int main() {
    printf("Starting lexical analysis...\n");
    yyin = fopen("p5.c", "r");
    yylex();
    printf("Valid Tokens: %d\n", valid);
    return 0;
}
```




```
D:\SEM-7\CD\PR5>flex PR5_5.1

D:\SEM-7\CD\PR5>gcc lex.yy.c

D:\SEM-7\CD\PR5>./a.out
'.' is not recognized as an internal or external command,
operable program or batch file.

D:\SEM-7\CD\PR5>a
Starting lexical analysis...
```


File Edit Selection View Go Run ···
PR5
C:\Windows\System32\cmd.exe - a
D:\SEM-7\CD\PR5>a
Starting lexical analysis...
)
Operator/Bracket:)
(
Operator/Bracket: (
{
Operator/Bracket: {
void
Keyword: void
int
Keyword: int
break
Identifier: break
}
\#.* {
printf("Preprocessor Directive: %s\n", yytext);
valid++;
}
\'([^\\\']|\\.)*\' {
printf("Character: %s\n", yytext);
valid++;
OUTLINE
TIMELINE
Ln 87, Col 1
Spaces: 4
UTF-8
CRLF
Plain Text
Type here to search
32°C Haze
ENG
12:58
09-09-2024