Practical 1	
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Aim:

To implement lexical analyser to recognize all distinct token classes: use flex/lex tool to recognize all distinct token classes (Data type, Identifier, constant (Integer, Float, Char, String), Operator (Arithmetic, Relational, Assign, Unary +/-, Increment), Single line/Multi-line comments, Special symbol(;,{}())) .

Generate Lexical error reports for invalid lexeme.

Program:

```
%{
#include<stdio.h>
int lineno=1;
%}

%%
void|int|scanf|printf {printf("%s is a keyword",yytext);}
[0-9]+ {printf("%s is a number",yytext);}
[A-Z]+ {printf("%s is a Capital Alphabet",yytext);}
\n     {printf("%s is a new line %d",yytext,lineno++);}
[+]    {printf("%s is a Addition",yytext);}
[*]    {printf("%s is a Multiplication",yytext);}
[-]    {printf("%s is a Subtraction",yytext);}
[/]    {printf("%s is a Divison",yytext);}
[=]    {printf("%s is a Assisgnment Operator",yytext);}
%%

int main(){
yylex();
}
```

```
int yywrap(){
return 1;
}
```

Input File:

```
#include<stdio.h>
{
int a,b;
printf("Enter value of a:");
scanf("%d",&a);
b=2*a+a;
printf("Value of B is :%d",&b);
}
```

Output: