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Expt. Name. Implement Token seperation for a given expression Date :

Aim:

To write a lex program to implement Token seperation for a given expression using LEX.

Algorithm:

step 1: Include the necessary header files and declare the necessary variables

step 2: Define the key words and the identifiers with the constant and operator

step 3: Get the statement for analysis from the user

step 4:: Check ~~the~~ each and every element in the statement with the define keyword and if it matches print it as the keyword.

step 5: Check each and every element in the statement with the defined identifier and if it matches print the element as an identifier.

step 6: Check each and every element in the statement with the defined constant then find the equivalence and ~~point~~ print it as constant

step 7: Check each and every element in the statement with the defined operator and if it matches print the element as an identifier

step 8: Display every element on the screen as seperated

step 9: Exit the program

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Program:

File.l

```
%option noyywrap
%{
    #include<stdio.h>
    void yyerror(char *);
%}
letter [A-Za-z]
digit [0-9]
operator [-+*]
%%
void |
main|
 if|
 do|
 printf|
 int|
 float|
 char|
 for                {printf("%s is a keyword\n",yytext);}
%s|
%c|
%d|
%f                  {printf("%s is a Format Specifier\n",yytext);}
({letter}|_)({letter}|{digit})*   {printf("%s is a identifier\n",yytext);}
{operator}({operator})*           {printf("%s is an operator\n",yytext);}
{digit}+           {printf("%s is a number\n",yytext);}
"("                {printf("%s is a open parenthesis\n",yytext);}
```

```
)       {printf("%s is an close parenthesis\n",yytext);}
;       {printf("%s is a semicolon\n",yytext);}
\{
\.
\=
\/
\,
\'
\"      {printf("%s is a double quote\n",yytext);}
.       {printf("\n Syntax Error!!\n");}
%%

void yyerror(char *s)
{
fprintf(stderr,"%s\n",s);
}
int main()
{
  yylex();
  return 0;
}
```

Result:

Implement Token seperation for given expression using LEX TOOL has been executed successfully.