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Div : A

Lex Program :


```
% {  
  
#include<stdio.h>  
  
% }  
  
%%  
  
[0.9]+[0-9]+printf("%s is a floating point number\n",yytext);  
  
int|float|char|double|voidprintf("%s is a datatype\n",yytext);  
  
[0-9]+ printf("%s is an integer number\n",yytext);  
  
[a-z]+[()] printf("%s is a function \n",yytext);  
  
[a-z]+ printf("%s is an identifier\n",yytext);  
  
[+=*/-] printf("%s is an operator\n",yytext);  
  
printf("%s is an delimiter\n",yytext);  
  
printf("%s is a separator\n",yytext);  
  
[#][a-z/.h]+ printf("%s is a preprocessor\n",yytext);  
  
%%  
  
int yywrap(void) { }  
  
int main()  
  
{  
  
freopen("test.c","r",stdin);  
  
yylex();  
  
return 0;  
  
}
```

C program:

```
#include<stdio.h>  
  
int main()
```

```
{  
int a=4;  
if(a%2==0)  
printf("Even");  
else  
printf("Odd");  
return 0;  
}
```

OUTPUT:



```
sp@sp-OptiPlex-3010:~/Desktop$ flex lexp.l  
sp@sp-OptiPlex-3010:~/Desktop$ gcc lex.yy.c  
sp@sp-OptiPlex-3010:~/Desktop$ ./a.out  
#include is a preprocessor  
<stdio is an identifier  
.h is an identifier  
>  
main( is a function  
)  
{  
a is an identifier  
= is an operator  
4 is an integer number  
;  
if( is a function  
a is an identifier  
%2 is an integer number  
= is an operator  
= is an operator  
0 is an integer number  
)  
printf( is a function  
"Even is an identifier  
");  
else is an identifier  
  
printf( is a function  
"Odd is an identifier  
");  
return is an identifier  
0 is an integer number  
;  
}
```