

```

%{
    #include <stdio.h>
    #include <stdlib.h>
%}

%%

[\\t\\n ]+      {}

if
else
class
struct
int
cout
return
case
switch
then
include {
    fprintf(yyout, "%s --> INVALID IDENTIFIER [RESERVED KEYWORDS]\\n", yytext);
}

[0-9]+ {
    fprintf(yyout, "%s --> INTEGER\\n", yytext);
}

[0-9]+ "." [0-9]* {
    fprintf(yyout, "%s --> FLOATING POINT\\n", yytext);
}

[0-9]+ "." [0-9]+ "e" [+-]? [0-9]+ {
    fprintf(yyout, "%s --> REAL NUMBER\\n", yytext);
}

[_a-zA-Z][a-zA-Z0-9]* {
    fprintf(yyout, "%s --> IDENTIFIER\\n", yytext);
}

}

"+"
"-"
"*"
"/" {
    fprintf(yyout, "%s --> OPERATOR\\n", yytext);
}

}

"//[a-zA-Z0-9' \\t]* {
    fprintf(yyout, "%s --> COMMENT\\n", yytext);
}

}

"/*[a-zA-Z0-9' \\t\\n]*""/" {
    fprintf(yyout, "%s --> COMMENT\\n", yytext);
}

}

. {}

%%

int main()
{
    extern FILE *yyin;
    extern FILE *yyout;

    yyin = fopen("in.cpp", "r");

```

```
    if(yyin == NULL)
        printf("\nError!!!\nCan't open the file.\n");

    yyout = fopen("out.cpp", "w");

    yylex();

    fclose(yyin);
    fclose(yyout);

    return 0;
}
```