Q.7>>Tokenization of a c prog with file handeling.

Case 1)[print the o/p at the screen]

```
%{
%}
%%
[0-9]+"."[0-9]+ {printf("%s is a floating constant\n",yytext);}
[0-9]+ {printf("%s is a int constant\n",yytext);}
"if"|"else"|"do"|"while" {printf("%s is a keywoard\n",yytext);}
[A-Za-z][A-Za-z0-9_]* {printf("%s is an identifier\n",yytext);}
"++"|">=" {printf("%s is a multioperator\n",yytext);}
[=-] {printf("%s is an operator\n",yytext);}
[(){};] {printf("%s is a seperator\n",yytext);}
. ;
%%
int main()
{
    extern FILE *yyin;
        yyin=fopen("input", "r");
        yylex();
        return 0;
}
int yywrap()
{
return 1;
}
```

```
rajasree@ubuntu-RajasreeVM:~/Desktop/lex$ lex tok_fileh.l
rajasree@ubuntu-RajasreeVM:~/Desktop/lex$ gcc lex.yy.c
rajasree@ubuntu-RajasreeVM:~/Desktop/lex$ ./a.out
do{
if(p>=0)
   q++;
else
   q=q-1.0;
}while(1);do is a keywoard
{ is a seperator

if is a keywoard
( is a seperator
p is an identifier
>= is a multioperator
0 is a int constant
) is a seperator

q is an identifier
++ is a multioperator
; is a seperator

else is a keywoard

q is an identifier
= is an operator
q is an identifier
- is an operator
1.0 is a floating constant
; is a seperator

} is a seperator
while is a keywoard
( is a seperator
1 is a int constant
) is a seperator
; is a seperator
rajasree@ubuntu-RajasreeVM:~/Desktop/lex$
```

Case 2)[print the o/p at output file]

```
%{

%}

%%

[0-9]+"."[0-9]+ {fprintf(yyout,"%s is a floating constant\n",yytext);}
```

```
[0-9]+ {fprintf(yyout,"%s is a int constant\n",yytext);}

"if"|"else"|"do"|"while" {fprintf(yyout,"%s is a keywoard\n",yytext);}

[A-Za-z][A-Za-z0-9_]* {fprintf(yyout,"%s is an identifier\n",yytext);}

"++"|">=" {fprintf(yyout,"%s is a multioperator\n",yytext);}

[=-] {fprintf(yyout,"%s is an operator\n",yytext);}

[(){};] {fprintf(yyout,"%s is a seperator\n",yytext);}

. ;

%%

int main()

{

    extern FILE *yyin, *yyout;

        yyin=fopen("input", "r");

        yyout=fopen("output", "w");

        yylex();

        return 0;

}

int yywrap()

{

return 1;

}
```

Open ∨ | ⊟ | **output** ~/Desktop/lex | Save | ≡ | — ⊡ ✕

‹ | float_int_space.l ✕ | with_print.l ✕ | actual_rep.l ✕ | int_float_id.l ✕ | tokenization_all.l ✕ | tokenization_cprog.l ✕ | tok_fileh.l ✕ | tok_fileh_op.l ✕ | input ✕ | ⚠ output ✕ | ›

The file "/home/rajasree/Desktop/lex/output" changed on disk. | Reload | ✕

```
1
```

```
 1 do is a keywoard
 2 { is a seperator
 3
 4 if is a keywoard
 5 ( is a seperator
 6 p is an identifier
 7 >= is a multioperator
 8 0 is a int constant
 9 ) is a seperator
10
11 q is an identifier
12 ++ is a multioperator
13 ; is a seperator
14
15 else is a keywoard
16
17 q is an identifier
18 = is an operator
19 q is an identifier
20 - is an operator
21 1.0 is a floating constant
22 ; is a seperator
23
24 } is a seperator
25 while is a keywoard
26 ( is a seperator
27 1 is a int constant
28 ) is a seperator
29 ; is a seperator
30
```