EXP NO: 03

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ASSIGNMENT 3

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Aim:

To solve the lex problems.

1.Write a lex program to validate the set of all strings over {a,b} with exactly 3 b's.

CODE:

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

%%
a*ba*ba*ba*          {printf("accepted\n");}
.*             {printf("not accepted\n");}
%%

void main()
{
  yylex();
}
int yyerror()
{
   return(1);
}
int yywrap()
{
return(1);
}
```

OUTPUT:

```
C:\Flex Windows>lex 3a.l

C:\Flex Windows>gcc lex.yy.c

C:\Flex Windows>a.exe
a
not accepted

bbb
accepted

abbbb
not accepted

babab
accepted
```

2.Write a lex program to validate the set of all strings over {a,b} with length 5 and ends with 'a'.

CODE:

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

%%
(a|b)(a|b)(a|b)(a|b)a       {printf("accepted\n");}
.*                                  {printf("not accepted\n");}
%%

void main()
{
  yylex();
}
int yyerror()
{
   return(1);
}
int yywrap()
```

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

OUTPUT:

```
C:\Flex Windows>lex 3b.l

C:\Flex Windows>gcc lex.yy.c

C:\Flex Windows>a.exe
babab
not accepted

ababa
accepted

aaa
not accepted

aaaaa
accepted
```

3.Write a lex program which get input from a file and classify the mails as personal, official and others accordingly to the separate file

```
%{
#include<stdio.h>
#include<string.h>
%}
%%
[a-z0-9]*@(gmail|yahoo)(.[a-z]*)*.(com|in) {
fprintf(yyout, yytext);
fprintf(yyout, "%s\n", " - Personal");
}
[a-z0-9]*@(cit|zoho)(.[a-z]*)*.(com|in) {
fprintf(yyout, yytext);
fprintf(yyout, "%s\n", " - Official");
}
```

```
[a-z0-9]*@[a-z]+(.[a-z]*)*.(com|in) {
fprintf(yyout, yytext);
fprintf(yyout, "%s\n", " - Others");
}
. {fprintf(yyout, "");}
%%
int yywrap(){
return 1;
}
int main()
{
extern FILE *yyin, *yyout;
yyin = fopen("Input.txt", "r");
yyout = fopen("Output.txt", "w");
yylex();
return 0;
}
```

Ouptut:

naveen@gmail.com – Personal

Result:

The programs has been executed successfully.