EXP NO: 04

DATE: 1 -0 -2022

<center>

ASSIGNMENT 4

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Aim:

To solve the lex problems.

1. Write a lex program to copy the content from input file and replace the character "S" with "W" paste it in the output file.

CODE:

```
%{
   #include <stdio.h>
   #include <string.h>
%}
%%
[s] {
   fprintf(yyout,"%s","W");
}

   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;
}
```
OUTPUT:

Input.txt

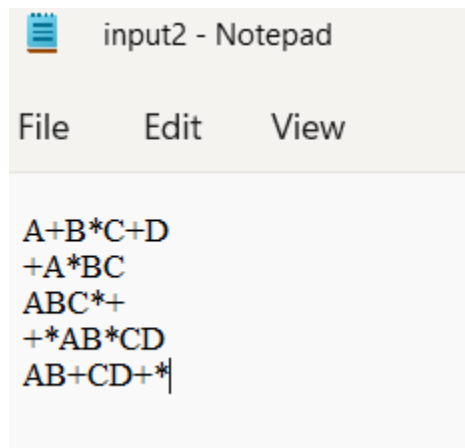Naveenkumar is a good boy s

Output.txt

Naveenkumar iW a good boy W

2. Write a lex program to read the expressions from a file and categorize into infix, prefix or post-fix into the output files.
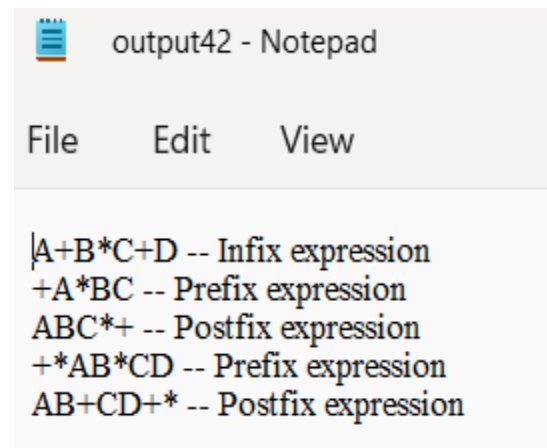
CODE:

```
%{
#include<stdio.h>
%}
infix [a-zA-Z]+[a-zA-Z+/*]+[a-zA-Z)]+
prefix [+*/]+[a-zA-Z+*/]+[a-zA-Z]+
postfix [a-zA-Z]+[a-zA-Z+*/]+[+*/]+
%%
{infix} {fprintf(yyout,"\n%s -- Infix expression",yytext);}
{prefix} {fprintf(yyout,"\n%s -- Prefix expression",yytext);}
{postfix} {fprintf(yyout,"\n%s -- Postfix expression",yytext);}
%%
int main(){
extern FILE *yyin,*yyout;
yyin=fopen("input2.txt","r");
yyout=fopen("output42.txt","w");
yylex();
}
int yyerror(){
return 1;
}
int yywrap(){
return 1;
}
```

OUTPUT:

input2 - Notepad

File   Edit   View

```
A+B*C+D
+A*BC
ABC*+
+*AB*CD
AB+CD+*
```

output42 - Notepad

File   Edit   View

```
A+B*C+D -- Infix expression
+A*BC -- Prefix expression
ABC*+ -- Postfix expression
+*AB*CD -- Prefix expression
AB+CD+* -- Postfix expression
```

Result:

The programs has been executed successfully.

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