Practical - 8

AIM: Write a program to convert infix to postfix using Lex and YACC.

Program:

1) **Yacc File**

```
%{
#include <stdio.h>
%}
%token NUMBER
%left '+'
%left '*'
%%
start : E { printf("\n"); exit(1);}
      E: E'+'E {printf("+ ");}
       |E'*'E {printf("* ");}
       |NUMBER {printf("%d", $1);}
%%
int main()
{
 yyparse();
 return 0;
}
yyerror(char *s)
{
 printf("%s",s);
 }
```

2) Lex File

```
%{
#include "y.tab.h"
extern int yylval;
%}
%%
[0-9]+ {yylval=atoi(yytext); return(NUMBER);}
. {return(yytext[0]);}
\n {return 0;}
%%

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

Output:

```
[21012021001@linuxserv ~]$ nano cdpr8.y
[21012021001@linuxserv ~]$ nano cdpr8.l
[21012021001@linuxserv ~]$ yacc -d cdpr8.y
[21012021001@linuxserv ~]$ lex cdpr8.l
[21012021001@linuxserv ~]$ cc lex.yy.c y.tab.c
[21012021001@linuxserv ~]$ ./a.out
2*4
24*
[21012021001@linuxserv ~]$ 2*4+2
```