2022-2026-CSE-A

## Aim:

Write a C program to convert a Postfix expression to Infix expression.

## **Source Code:**

## postfixToInfix.c

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<stdlib.h>
# define MAX 20
char str[MAX],stack[MAX];
int top=-1;
void push(char c)
   stack[++top]=c;
}
char pop()
   return stack[top--];
char *strrev(char *str)
   char c, *front, *back;
   if(!str || !*str)
   return str;
   for(front=str,back=str+strlen(str)-1;front < back;front++,back--)</pre>
      c=*front;*front=*back;*back=c;
   return str;
void postfix()
   int n,i,j=0;
   char a,b,op,x[20];
   printf("Enter a Postfix expression:");
   fflush(stdin);
   scanf("%s", str);
   strrev(str);
   n=strlen(str);
   for(i=0;i<MAX;i++)</pre>
   {
      stack[i]='\0';
   printf("Infix expression:");
   for(i=0;i<n;i++)
      if(str[i]=='+'||str[i]=='-'||str[i]=='*'||str[i]=='/')
         push(str[i]);
```

```
else
      {
         x[j]=str[i]; j++;
         x[j]=pop(); j++;
      }
   }
   x[j]=str[top--];
   strrev(x);
   printf("%s\n",x);
}
void main()
   postfix();
}
```

## Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter a Postfix expression: AB+
Infix expression:A+B

Test Case - 2	
User Output	
Enter a Postfix expression: ABC*+D+	
Infix expression:A+B*C+D	