Aim:

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

Source Code:

prefixToInfix.c

```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--];
}
void prefix()
{
    int n,i;
     char a,b,op;
      printf("Enter a Prefix expression:");
       fflush(stdin);
        scanf("%s", str);
         n=strlen(str);
          for(i=0;i<MAX;i++)
           {
             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
                  {
                     op=pop();
                      a=str[i];
                       if(op == '\0')
                        {
                            printf("%c",a);
                        }
                         else
                          {
                          printf("%c%c",a,op);
                        }
```

```
                }
    }
    if(top >= 0)
     {
        printf("%c\n",str[top--]);
     }
      else
       {
          printf("\n");
       }
       // printf("%c\n",str[top--]);
       }
       void main()
       {
           prefix();
       }
```

Execution Results - All test cases have succeeded!

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

Test Case - 2
User Output
Enter a Prefix expression: +/AB/CD
Infix expression:A/B+C/D