

09/10/20

1819CS052

## INFIX TO POSTFIX PROGRAM

DIUVYANSHU

```
Q. #include <stdio.h>
#include <ctype.h>
char st[100];
int top = -1;
void push(char x)
{
    if (top == 99)
    {
        printf("\n STACK OVERFLOW");
    }
    else
    {
        top++;
        st[top] = x;
    }
}

char pop()
{
    if (top == -1)
    {
        printf("\n STACK UNDERFLOW");
        return -1;
    }
    else
    {
        return st[top--];
    }
}

int priority(char x)
```

```

    if (x == 'c')
        return 0;
    if (x == '+' || x == '-')
        return 1;
    if (x == '*' || x == '/')
        return 2;
    return 0;
}

```

```

int main ()
{

```

```

    char exp[100];
    char x;
    printf("\n Enter the Infix Expression: ");
    scanf("%s", exp);

```

```

    int i = 0;
    while (exp[i] != '\0')
    {

```

```

        if (isalnum(exp[i]))
            printf("%c", exp[i]);
        else if (exp[i] == 'c')
            push(exp[i]);
        else if (exp[i] == '+')

```

```

        {
            while ((x = pop()) != '(')
                printf("%c", x);

```

```

        }
        else
        {

```

```

            while (priority(st[top]) >= priority(exp[i]))
                printf("%c", pop());
            push(exp[i]);

```

```
    }  
    i++;  
}  
while (top != -1)  
{  
    printf("%c", pop());  
}  
return 0;  
}
```