

```
/* Program for evaluation of a postfix expression.*/
/*Assumption-- primary operators '-',+,*,'/' operand -- a single digit*/
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```
#include<stdio.h>
#include<ctype.h>
#define size 20
```

```
typedef struct stack
{
    int s[size];
    int top;
}stack;
```

```
void main()
{
    stack st;
    char x[20];
    int op1,op2,val,i,p;
    st.top=-1;
    printf("\nEnter the expression(i.e59+3*)\nsingle digit operand and operators only:");
    gets(x);
    for(i=0;x[i]!='\0';i++)
    {
        if(isdigit(x[i]))
        {
            st.top++;
            st.s[st.top]=x[i]-48;
        }
        else
        {
            op2=st.s[st.top];
            st.top--;
            op1=st.s[st.top];
            st.top--;

            if(x[i]=='+')
                p=op1+op2;
            else if(x[i]=='-')
                p=op1-op2;
            else if(x[i]=='*')
                p=op1*op2;
            else if(x[i]=='/')
                p=op1/op2;
            else if(x[i]=='%')
                p=op1%op2;
            else if(x[i]=='^')
            {
                for(i=1;i<=op2;i++)
                    p=op1*p;
            }
            st.top++;
            st.s[st.top]=p;
        }
    }
    val=st.s[st.top];
    st.top--;
    printf("\nvalue of expression = %d",val);
}
```