**Evaluate POSTFIX Expression Using Stack**

#include<stdio.h>

int stack[20];

int top = -1;

void push(int x)

{

        stack[++top] = x;

}

int pop()

{

        return stack[top--];

}

int main()

{

        char exp[20];

        char \*e;

        int n1,n2,n3,num;

        printf("Enter the expression :: ");

        scanf("%s",exp);

        e = exp;

        while(\*e != '\0')

        {

                if(isdigit(\*e))

                {

                        num = \*e - 48;

                        push(num);

                }

                else

                {

                        n1 = pop();

                        n2 = pop();

                        switch(\*e)

                        {

                                case '+':

                                {

                                        n3 = n1 + n2;

                    break;

                                }

                                case '-':

                                {

                                        n3 = n2 - n1;

                                        break;

                                }

                                case '\*':

                                {

                                        n3 = n1 \* n2;

                                        break;

                                }

                                case '/':

                                {

                                        n3 = n2 / n1;

                                        break;

                                }

                        }

                        push(n3);

                }

                e++;

        }

        printf("\nThe result of expression %s  =  %d\n\n",exp,pop());

        return 0;

}

## OUTPUT:

Enter the expression :: 245+\*

The result of expression 245+\* = 18