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//INFIX TO POSTFIX

```
#include<stdio.h>
#include<ctype.h>
```

```
char stack[100];
int top = -1;
```

```
void push(char x)
{
    stack[++top] = x;
}
```

```
char pop()
{
    if(top == -1)
        return -1;
    else
        return stack[top--];
}
```

```
int priority(char x)
{
    if(x == '(')
        return 0;
    if(x == '+' || x == '-')
        return 1;
    if(x == '*' || x == '/')
        return 2;
    return 0;
}
```

```
int main()
{
    char exp[100];
    char *e, x;
    printf("Enter the expression : ");
    scanf("%s",exp);
    printf("\n");
    e = exp;

    while(*e != '\0')
    {
        if(isalnum(*e))
            printf("%c ",*e);
        else if(*e == '(')
            push(*e);
        else if(*e == ')')
        {

```

```

        while((x = pop()) != '(')
            printf("%c ", x);
    }
    else
    {
        while(priority(stack[top]) >= priority(*e))
            printf("%c ",pop());
        push(*e);
    }
    e++;
}

```

```

while(top != -1)
{
    printf("%c ",pop());
}
printf("\n");
return 0;
}

```

OUTPUT

```

ubuntu@ubuntu: ~/C_Programs

ubuntu@ubuntu:~/C_Programs$ ./a.out
Enter the expression : a+b*c

a b c * +
ubuntu@ubuntu:~/C_Programs$ (a+b)*c+(d-a)
bash: syntax error near unexpected token `*c+(d-a)'
ubuntu@ubuntu:~/C_Programs$ ./a.out
Enter the expression : (a+b)*c+(d-a)

a b + c * d a - +
ubuntu@ubuntu:~/C_Programs$ ./a.out
Enter the expression : ((4+8)(6-5))/((3-2)(2+2))

4 8 + 6 5 - 3 2 - 2 2 + /
ubuntu@ubuntu:~/C_Programs$

```