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#include <stdio.h>
# define MAX 100
char stack[MAX];
int top=-1;

void push(char ch)
{
    if (top==MAX-1)
        printf("Stack is full\n");
    else
    {
        top++;
        stack[top]=ch;
    }
}
char pop()
{
    char item;
    item=stack[top];
    top--;
    return item;
}

int stackempty()
{
    if(top==-1) return 1;
    else return 0;
}

char stacktop()
{
    return stack[top];
}
int priority(char ch)
{

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switch(ch)
{
    case '+':
    case '-':return (1);
    case '*':
    case '/':return (2);
    case '^': return (3);
    default : return (0);
}
}

```

```

int main(int argc, char **argv)
{
    char infix[100];
    int i, item;
    printf("Enter the infix expression :");
    scanf("%s",infix);
    printf("Expression : %s\n",infix);
    printf("Postfix: ");
    i=0;
    while (infix[i]!='\0')
    {

        switch (infix[i])
        {
            case '(': push(infix[i]);
                        break;
            case ')':while(( item=pop())!='(')
                        printf("%c",item);
                        break;
            case '+':
            case '-':
            case '*':

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        case '/':
        case '^':
            while(!stackempty() &&
priority(infix[i])<=priority(stacktop()))
            {
                item=pop();

                printf("%c", item);
            }

            push(infix[i]);
            break;
        default : printf("%c", infix[i]);
            break;

    }
    i++;
}

while(!stackempty())
{
    char item;
    item=pop();
    printf("%c", item);

}
printf("\n");
return 0;

}

```