

```

#include<stdio.h>
#include <conio.h>
struct Stack
{
    char arr[10];
    int tos;
};
void push(struct Stack *,char);
char pop(struct Stack *);
int isoperand(char);
int main()
{
    char infix[20],postfix[20];
    printf("Enter a valid infix exp:");
    scanf("%s",infix);
    convert(infix,postfix);
    printf("Postfix exp is %s",postfix);
    return 0;
}

int isoperand(char);
int prcd(char,char);
int isempty(struct Stack);
void convert(char[ ],char[ ]);

```

Handwritten annotations for `isoperand`:

- `1` → operand
- `0` → operator

Handwritten annotations for `prcd`:

- `1` → `op1 > op2` → `push()`
- `0` → `op1 < op2` → `pop()`

Handwritten annotations for `isempty`:

- `1` → empty
- `0` → not empty

```

void convert(char infix[20],char postfix[20])
{
    struct Stack S;
    char ch,opn;
    int i,j=0;
    int ans;
    S.tos=-1;
    for(i=0;infix[i]!='\0';i++)
    {
        ch=infix[i];
        if(isoperand(ch)==1)
        {
            postfix[j]=ch;
            j++;
        }
    }
}

```

```

else
{
    while(isempty(S)==0)
    {
        ans=prcd(ch,S.arr[S.tos]);
        if(ans==1)
            break;
        opn=pop(&S);
        postfix[j]=opn;
        j++;
    }
    push(&S,ch);
}

while(isempty(S)==0)
{
    opn=pop(&S);
    postfix[j]=opn;
    j++;
}
postfix[j]='\0';
}

```

```
int prcd(char op1,char op2)
{
    if(op2=='$')
        return 0;
    else if(op1=='$')
        return 1;
    // continue this code
}
```