DEEPU.K
1BM19CS044

infix to POSTfix
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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;
 if(top==-1)
```

```
Printf ("stack is empty!");
else
{
   item = stack[top];
   top--;
   return item;
}
}
int Stackempty()
{
   if (top == -1) return 1;
   else return 0;
}
Char Stack top()
{
   if (top == -1)
   Printf("stack is empty!");
   else
      return stack[top];
}
int Priority (char ch
{
   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", 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 '*':
Case '/':
Case '^':
While(!StackEmpty()){
    Priority(infix[i] <= Priority(Stack top()))
    {
    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);
3
Printf("\n");
return 0;
}
```

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