```
#include<stdio.h>
 1
 2
    #include<stdlib.h>
 3
    typedef struct {
 4
         int n;
 5
         char a;
 6
         char b;
 7
         char c;
 8
    }ElementType;
 9
    typedef struct node{
         ElementType data[1000];
10
11
         int top;
12
    }*stack;
    stack create(){
13
14
         stack s= (stack)malloc(sizeof(struct node));
15
         s \rightarrow top = -1;
16
         return s;
17
    }
18
    int isEmpty(stack s){
19
        if(s\rightarrow top==-1){
20
             return 1;
21
        }else{
22
             return 0;
23
         }
24
25
    void push(stack s,ElementType x){
26
         s->data[++(s->top)]=x;
27
28
    }
29
    ElementType pop(stack s){
30
         return (s->data[(s->top)--]);
31
    }
32
    void hannuo(int pan){
33
         ElementType temp,topush;
         stack s = create();
34
35
         temp.a='A';
36
         temp.b='B';
         temp.c='C';
37
38
         temp.n=pan;
39
         push(s,temp);
40
        while(isEmpty(s)!=1){
41
            temp=pop(s);
42
            if(temp.n==1){
                printf("%c->%c\n",temp.a,temp.c);
43
44
45
            }else{
                topush.n=temp.n-1;
47
                topush.a=temp.b;
48
                topush.b=temp.a;
49
                topush.c=temp.c;
50
                push(s,topush);
51
                topush.n=1;
52
                topush.a=temp.a;
53
                topush.b=temp.b;
54
                topush.c=temp.c;
55
                push(s,topush);
```

```
56
                topush.n=temp.n-1;
57
                topush.a=temp.a;
58
                topush.b=temp.c;
59
                topush.c=temp.b;
                push(s,topush);
60
61
           }
62
        }
63
64
65
    }
66
    int main(){
67
        int x;
68
        if(scanf("%d",&x)){};
        hannuo(x);
69
70
        return 0;
71
    }
72
73
```

