Chapter11-程序源代码与运行结果

12.1

// Source Codes:

#include <stdio.h>

**typedef** **struct** {

**int** year;

**int** month;

**int** day;

} Date;

**typedef** **struct** {

**char** College[10];

**char** Level[10];

**char** Job[10];

} careerStatus;

**typedef** **struct** {

**char** Name[30];

**char** Sex;

Date Birthday;

careerStatus career;

} Employee;

12.6

// Source Codes:

#include <stdio.h>

#include <stdlib.h>

**typedef** **struct** \_\_basic\_lt\_stack {

**long** **long** Content;

**struct** \_\_basic\_lt\_stack\* Next;

} Stack;

Stack \*construct\_stack() {

**return** malloc(**sizeof**(Stack));

}

**void** destruct\_stack(Stack \*\_new\_last) {

**if** (\_new\_last->Next!=**NULL**) {

destruct\_stack(\_new\_last->Next);

\_new\_last->Next = **NULL**;

}

**else** free(\_new\_last);

}

Stack \*find\_last(Stack \*\_ancestor) {

**while** (\_ancestor->Next!=**NULL**) \_ancestor = \_ancestor->Next;

**return** \_ancestor;

}

**void** push\_back(Stack \*\_ancestor, **long** **long** \_content) {

Stack \*last = find\_last(\_ancestor);

last->Next = malloc(**sizeof**(Stack));

last->Next->Next = **NULL**;

last->Next->Content = \_content;

}

**long** **long** pop\_back(Stack \*\_ancestor) {

**long** **long** ret = 0;

**if** (\_ancestor->Next == **NULL**) {

ret = \_ancestor->Content;

free(\_ancestor);

}

**else** {

Stack \*last = \_ancestor->Next;

Stack \*last\_2 = \_ancestor;

**while** (last->Next != **NULL**) {

last\_2 = last;

last = last->Next;

}

ret = last->Content;

destruct\_stack(last\_2);

}

**return** ret;

}

**int** main() {

Stack \*root = construct\_stack();

**int** i=0;

**for** (i=0 ; i<50 ; i++) {

push\_back(root, i);

}

**for** (i=0 ; i<50 ; i++) {

printf ("%d ", pop\_back(root));

}

**return** 0;

}

// Result:

