#include <iostream>

using namespace std;

class Node {

public:

char data;

Node\* next;

Node(char d) { data = d; next = nullptr; }

};

class StackList {

public:

Node\* top;

StackList() { top = nullptr; }

void push(char val) {

Node\* newNode = new Node(val);

newNode->next = top;

top = newNode;

}

void pop() {

if (!top) return;

Node\* temp = top;

top = top->next;

delete temp;

}

bool empty() { return top == nullptr; }

char peek() { return top->data; }

};

class StackArray {

public:

char\* arr;

int top;

int size;

StackArray(int s) {

size = s;

arr = new char[size];

top = -1;

}

void push(char val) {

if (top < size - 1) arr[++top] = val;

}

void pop() {

if (top >= 0) top--;

}

bool empty() { return top == -1; }

char peek() { return arr[top]; }

~StackArray() { delete[] arr; }

};

int main() {

StackList s1;

s1.push('A');

s1.push('B');

s1.push('C');

while (!s1.empty()) {

cout << s1.peek() << " ";

s1.pop();

}

cout << endl;

StackArray s2(5);

s2.push('X');

s2.push('Y');

s2.push('Z');

while (!s2.empty()) {

cout << s2.peek() << " ";

s2.pop();

}

cout << endl;

return 0;

}