#include <iostream>

using namespace std;

const int MAX = 5; //栈中最多保存5个数据

class stack {

public:

void init(void) { top = 0; } //初始化函数

void push(int x); //入栈函数

int pop(void); //出栈函数

int gettop() { return top; } //获取栈顶指针

private:

int num[MAX]; //存放栈的数组

int top; //栈顶指针

bool isfull() {

return top == MAX ? true : false;

}

bool isempty() {

return top == -1 ? true : false;

}

};

void stack::push(int x) {

if (isfull()) {

cout << "Stack is full!" << endl;

return;

};

num[top] = x;

top++;

}

int stack::pop(void) {

top--;

if (isempty()) {

cout << "Stack is empty!" << endl;

return 0;

};

return num[top];

}

int main() {

stack s;

s.init();

s.push(1);

s.push(2);

s.push(3);

s.push(4);

s.push(5);

for (int i = 0; i<3; i++)

cout << s.pop() << endl;

cout << endl;

s.push(3);

s.push(4);

s.push(5);

s.push(6);

cout << endl;

for (int i = 0; i<5; i++)

cout << s.pop() << endl;

s.pop();

return 0;

}