#include <iostream>

using namespace std;

//#define MAX 10 // MAXIMUM STACK CONTENT

int const MAX=10;

class stack

{

private:

int arr[MAX]; // Contains all the Data

int top; //Contains location of Topmost Data pushed onto Stack

public:

stack() //Constructor

{

top=-1; //Sets the Top Location to -1 indicating an empty stack

}

///////////////////////////////////////////////////////////

void push(int a) // Push ie. Add Value Function

{

top++; // increment to by 1

if(top<MAX)

{

arr[top]=a; //If Stack is Vacant store Value in Array

}

else

{

cout<<"STACK FULL!!"<<endl;

top--;

}

}

//////////////////////////////////////////////////

int pop() // Delete Item. Returns the deleted item

{

if(top==-1)

{

cout<<"STACK IS EMPTY!!!"<<endl;

return NULL;

}

else

{

int data=arr[top]; //Set Topmost Value in data

arr[top]=NULL; //Set Original Location to NULL

top--; // Decrement top by 1

return data; // Return deleted item

}

}

};

////////////////////////////////////////////////////

int main()

{

stack a;

a.push(3);

cout<<"3 is Pushed\n";

a.push(10);

cout<<"10 is Pushed\n";

a.push(1);

cout<<"1 is Pushed\n\n";

cout<<a.pop()<<" is Popped\n";

cout<<a.pop()<<" is Popped\n";

cout<<a.pop()<<" is Popped\n";

getchar();

getchar();

return 0;

}