

```
// stdafx.h : include file for standard system include files,  
// or project specific include files that are used frequently, but  
// are changed infrequently  
//
```

```
#pragma once
```

```
#include "targetver.h"  
#include <string>  
#include <stdio.h>  
#include <tchar.h>  
#ifndef LIFO_H  
#define LIFO_H  
template <typename Type>  
class LIFO{  
private:  
    enum {maxVelikost = 10};  
    Type *prvky;  
    int top;  
    int velikostPole;  
    void inity();  
public:  
    LIFO();  
    LIFO(int max);  
    bool isEmpty() { return top == 0; };  
    bool isFull() { return top == velikostPole; };  
    bool push(const Type &item);  
    bool pop(Type &prvek);  
    void view();  
    ~LIFO();  
};
```

```
template <typename Type>  
LIFO<Type>::LIFO(int max) : velikostPole(max), top(0)  
{  
    prvky = new Type[velikostPole];  
}
```

```
template <typename Type>  
LIFO<Type>::LIFO()  
{
```

```

        top = 0;
        velikostPole = maxVelikost;
        prvky = new Type[maxVelikost];
    }

```

```

template <typename Type>
bool LIFO<Type>::push(const Type &item)
{
    if (top < velikostPole){
        prvky[top++] = item;
        return true;
    }else{
        return false;
    }
}

```

```

template <typename Type>
bool LIFO<Type>::pop(Type &prvek)
{
    if(top > 0){
        prvek = prvky[--top];

        return true;
    }else{
        return false;
    }
}

```

```

template <typename Type>
void LIFO<Type>::view()
{
    for (int i = 0; i < top; i++){
        cout << prvky[i] << endl;
    }
}

```

```

template <typename Type>
LIFO<Type>::~~LIFO()
{

```

```
        delete [] prvky;
        top = 0;
    }
```

```
#endif
```

```
// SablonaLIFO.cpp : Defines the entry point for the console application.
//
```

```
#include "stdafx.h"
#include <iostream>
#include <string>
#include <cctype>
using namespace std;
```

```
int _tmain(int argc, _TCHAR* argv[])
{
    LIFO<int> zasobnik(5);
    // LIFO<int> zasobnik;

    int pom;

    zasobnik.push(10);
    zasobnik.push(20);
    zasobnik.push(30);
    zasobnik.push(40);
    zasobnik.push(50);
    zasobnik.push(60);
    zasobnik.push(70);

    if(zasobnik.isEmpty() == true){
        cout << "prazdny" << endl;
    }else {
        cout << "neni prazdny" << endl;
    }
}
```

```
}  
  
zasobnik.view();  
  
zasobnik.pop(pom);  
  
cout << "odebrany prvek: " << pom << endl;  
  
zasobnik.view();  
  
system("pause");  
return 0;  
}
```