

Tema: Nuo C link C++. Stekas – “struktūra-klasė”. OOP principas: inkapsuliacija

// stack_5.h

```
const int STACK_SIZE = 10;
```

```
struct stack {                                     // class stack {
    char stackas[STACK_SIZE];
    int top;
    void reset();
    void push(char);
    char pop();
    int is_empty();
    int is_full();
};
```

// stack_5.cpp

```
#include <stdio.h>
#include "stack_5.h"

int stack::is_empty () {return (0 == top);}
int stack::is_full () {return (STACK_SIZE == top);}
void stack::reset() {top=0;}

void stack::push(char c) {
    if (!is_full()) stackas[top++] = c;
    else printf("Stekas pilnas\n");
}
char stack::pop() {
    if (!is_empty()) return stackas[--top];
    printf("\nStekas tuscias\n");
    return '\n';
}
```

// driver 5.cpp

```
#include <stdio.h>
#include "stack_5.h"
```

```
int main(void) {
    int c;
    stack st1, st2;
```

```
    st1.reset();
```

.....
Error Driver_5.cpp : 'stack::reset()' is not accessible in function main()...
.....

```
    while ( '\n' != (c=getchar()) ) st1.push(c);
    while ( '\n' != (c=st1.pop()) ) putchar(c);
```

```
    st2.reset();
    while ( '\n' != (c=getchar()) ) st2.push(c);
    while ( '\n' != (c=st2.pop()) ) putchar(c);
```

```
    st1.stackas[st1.top++] = '!';
    putchar(st1.pop());
    return 0;
```

```
}
```