

Tema: Nuo C link C++. Stekas – “tipas (modulyje)”.

// stack\_4.h

```
#define STACK_SIZE 10

typedef struct {
    char stack[STACK_SIZE];
    int top;
} stack;

void reset(stack *);
void push(stack *, char);
char pop(stack *);
```

// stack\_4.c

```
#include <stdio.h>
#include "stack_4.h"

static int is_empty (stack *id) {
    return (0 == id->top);
}
static int is_full (stack *id) {
    return (STACK_SIZE == id->top);
}
void reset(stack *id) {
    id->top=0;
}
void push(stack *id, char c) {
    if (!is_full(id)) id->stack[id->top++] = c;
    else printf("Stekas pilnas\n");
}
char pop(stack *id) {
    if (!is_empty(id)) return id->stack[--id->top];
    printf("\nStekas tuscias\n");
    return '\n';
}
```

// driver\_4.c

```
#include <stdio.h>
#include "stack_4.h"

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

    reset(&st1);
    while ( '\n' != (c=getchar()) ) push(&st1,c);
    while ( '\n' != (c=pop(&st1)) ) putchar(c);

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

    st1.stack[st1.top++ ] = '!';
    return 0;
}
```