Лабораторная работа №15

main.cpp

#include <cstdio>  
#include "lib.h"  
using namespace std;  
  
#define FILENAME "/mnt/c/Users/npv3s/Desktop/text.txt"  
  
int main() {  
 FILE \*fp;  
 if ((fp = fopen(FILENAME, "r")) == nullptr) {  
 puts("Невозможно открыть файл");  
 return -1;  
 }  
  
 char text[TEXT\_SIZE] = {'\0'};  
 int text\_index = 0;  
 char buff;  
 while ((buff = getc(fp)) != EOF) {  
 text[text\_index] = buff;  
 text\_index++;  
 }  
 fclose(fp);  
  
 int points\_len = text\_processing(text, text\_index);  
  
 FILE \*fw;  
 if ((fw = fopen(FILENAME, "w")) == nullptr) {  
 puts("Невозможно открыть файл");  
 return -1;  
 }  
 fprintf(fw, "%d\n%s", points\_len, text);  
 fclose(fw);  
  
 return 0;  
}

lib.h

//  
// Created by npv3s on 06.03.2020.  
//  
  
#ifndef LAB15V1\_LIB\_H  
#define LAB15V1\_LIB\_H  
  
  
#define MAX\_SENTENCE 256  
#define TEXT\_SIZE 2048  
  
int text\_processing(char[TEXT\_SIZE], int);  
  
#endif //LAB15V1\_LIB\_H

lib.cpp

//  
// Created by npv3s on 06.03.2020.  
//  
  
#include <cstdio>  
#include "lib.h"  
  
  
int text\_processing(char text[2048], int text\_index) {  
  
 int points\_index[MAX\_SENTENCE];  
  
 int points\_len = 0;  
 for (int i = 0; i < text\_index; i++) {  
 if (text[i] == '.') {  
 points\_index[points\_len++] = i;  
 }  
 }  
  
 for (int i = points\_len - 1; i > 0; i--) {  
 for (int y = points\_index[i - 1] + 2; y < points\_index[i] + 2; y++) {  
 printf("%c", text[y]);  
 }  
 }  
 for (int y = 0; y < points\_index[0] + 2; y++) {  
 printf("%c", text[y]);  
 }  
  
 return points\_len;  
}

text.txt “До”

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

text.txt “После”

4

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Вывод:

npv3s@npv3s-MagicBook:/mnt/c/Users/npv3s/GitHub/AlgLabs/lab15/lab15v1$ g++ -c main.cpp lib.cpp  
npv3s@npv3s-MagicBook:/mnt/c/Users/npv3s/GitHub/AlgLabs/lab15/lab15v1$ g++ main.o lib.o -o lab15v1  
npv3s@npv3s-MagicBook:/mnt/c/Users/npv3s/GitHub/AlgLabs/lab15/lab15v1$ ./lab15v1  
Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.Duis aute  
 irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Ut enim ad minim veniam,   
quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. 4  
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna ali  
qua.

main.cpp

#include <iostream>  
#include "lib.h"  
using namespace std;  
  
int main(int argc, char\* argv[]) {  
 const int nums\_len = atoi(argv[1]);  
 if ((nums\_len + 2) > argc) {  
 cout << "Слишком мало цифр!" << endl;  
 return 1;  
 } if ((nums\_len + 2) < argc) {  
 cout << "Слишком много цифр!" << endl;  
 return 1;  
 }  
 int nums[nums\_len];  
 for (int i = 2; i < (nums\_len + 2); i++) {  
 nums[i-2] = atoi(argv[i]);  
 }  
 cout << sum(nums\_len, nums) << endl;  
 return 0;  
}

lib.h

//  
// Created by npv3s on 02.03.2020.  
//  
  
#ifndef LAB15V1\_LIB\_H  
#define LAB15V1\_LIB\_H  
  
int sum(int nums\_len, int \*nums);  
  
#endif //LAB15V1\_LIB\_H

lib.cpp

//  
// Created by npv3s on 02.03.2020.  
//  
  
#include "lib.h"  
  
int sum(int nums\_len, int \*nums) {  
 int out = 0;  
 for (int i = 0; i < nums\_len; i++) {  
 out += \*(nums + i);  
 }  
 return out;  
}

Вывод:

npv3s@npv3s-MagicBook:/mnt/c/Users/npv3s/GitHub/AlgLabs/lab15/lab15v2$ g++ -c main.cpp lib.cpp  
npv3s@npv3s-MagicBook:/mnt/c/Users/npv3s/GitHub/AlgLabs/lab15/lab15v2$ g++ main.o lib.o -o lab15v2  
npv3s@npv3s-MagicBook:/mnt/c/Users/npv3s/GitHub/AlgLabs/lab15/lab15v2$ ./lab15v2 5 1 2 3 4 5  
15