1.

function.cpp

#include<iostream>

#include<time.h>

using namespace std;

void setint(int size, int \*mas)

{

for (int i = 0; i < size; i++)

{

mas[i] = rand() % 100;

}

}

void printint(int size, int\* mas)

{

for (int i = 0; i < size; i++)

{

cout << mas[i] << " ";

}

}

void Minint(int size, int\* mas)

{

int min;

min = mas[0];

for (int i = 0; i < size; i++)

{

if (mas[i] < min)

{

min = mas[i];

}

}

cout << "\n" << "min = " << min;

}

void Maxint(int size, int\* mas)

{

int max;

max = mas[0];

for (int i = 0; i < size; i++)

{

if (mas[i] > max)

{

max = mas[i];

}

}

cout << "\n" << "min = " << max;

}

void changeint(int size, int\* mas)

{

int n;

cout << "\nVvedite n elemnt kotoriy hotite zamenit': ";

cin >> n;

cout << "\nVvedite znachennya n elementa: ";

int z;

cin >> z;

mas[n] = z;

for (int i = 0; i < size; i++)

{

cout << mas[i] << " ";

}

}

void setfloat(int size, float\* mas)

{

for (int i = 0; i < size; i++)

{

mas[i] = rand() % 100;

}

}

void printfloat(int size, float\* mas)

{

for (int i = 0; i < size; i++)

{

cout << mas[i] << " ";

}

}

void Minfloat(int size, float\* mas)

{

int min;

min = mas[0];

for (int i = 0; i < size; i++)

{

if (mas[i] < min)

{

min = mas[i];

}

}

cout << "\n" << "min = " << min;

}

void Maxfloat(int size, float\* mas)

{

int max;

max = mas[0];

for (int i = 0; i < size; i++)

{

if (mas[i] > max)

{

max = mas[i];

}

}

cout << "\n" << "min = " << max;

}

void changefloat(int size, float\* mas)

{

int n;

cout << "\nVvedite n elemnt kotoriy hotite zamenit': ";

cin >> n;

cout << "\nVvedite znachennya n elementa: ";

int z;

cin >> z;

mas[n] = z;

for (int i = 0; i < size; i++)

{

cout << mas[i] << " ";

}

}

void setchar(int size, char\* mas)

{

for (int i = 0; i < size; i++)

{

mas[i] = rand() % 100;

}

}

void printchar(int size, char\* mas)

{

for (int i = 0; i < size; i++)

{

cout << mas[i] << " ";

}

}

void Minchar(int size, char\* mas)

{

int min;

min = mas[0];

for (int i = 0; i < size; i++)

{

if (mas[i] < min)

{

min = mas[i];

}

}

cout << "\n" << "min = " << min;

}

void Maxchar(int size, char\* mas)

{

int max;

max = mas[0];

for (int i = 0; i < size; i++)

{

if (mas[i] > max)

{

max = mas[i];

}

}

cout << "\n" << "min = " << max;

}

void changechar(int size, char\* mas)

{

int n;

cout << "\nVvedite n elemnt kotoriy hotite zamenit': ";

cin >> n;

cout << "\nVvedite znachennya n elementa: ";

int z;

cin >> z;

mas[n] = z;

for (int i = 0; i < size; i++)

{

cout << mas[i] << " ";

}

}

function.h

#pragma once

void setint(int size, int\* mas);

void printint(int size, int\* mas);

void Minint(int size, int\* mas);

void Maxint(int size, int\* mas);

void changeint(int size, int\* mas);

void setfloat(int size, float\* mas);

void printfloat(int size, float\* mas);

void Minfloat(int size, float\* mas);

void Maxfloat(int size, float\* mas);

void changefloat(int size, float\* mas);

void setchar(int size, char\* mas);

void printchar(int size, char\* mas);

void Minchar(int size, char\* mas);

void Maxchar(int size, char\* mas);

void changechar(int size, char\* mas);

#ifdef s

typedef int Integer;

typedef float Floater;

typedef char Char;

#endif

#define cii setint

#define cif setfloat

#define cic setchar

#define coi printint

#define cof printfloat

#define coc printchar

#define mii Minint

#define mif Minfloat

#define mic Minchar

#define mai Maxint

#define maf Maxfloat

#define mac Maxchar

#define chi changeint

#define chf changefloat

#define chc changefloat

prog.cpp

#define \_CRT\_SECURE\_NO\_WARNINGS

#include <iostream>

#include <Windows.h>

#include <math.h>

#define s 10

#include "Function.h"

using namespace std;

#define INTEGER

#ifdef INTEGER

#define Cin setint

#define Cout printint

#define Min Minint

#define Max Maxint

#define Change changeint

#endif

#ifdef DOUBLE

#define Cin setfloat

#define Cout printfloat

#define Min Minfloat

#define Max Maxfloat

#define Change changefloat

#endif

#ifdef CHAR

#define Cin setchar

#define Cout printchar

#define Min Minchar

#define Max Maxchar

#define Change changechar

#endif

int main()

{

SetConsoleCP(1251);

SetConsoleOutputCP(1251);

int size;

cin >> size;

int\* mas = new int[size];

setint(size, mas);

printint(size, mas);

Minint(size, mas);

Maxint(size, mas);

changeint(size, mas);

float\* mass = new float[size];

setfloat(size, mass);

printfloat(size, mass);

Minfloat(size, mass);

Maxfloat(size, mass);

changefloat(size, mass);

char\* masss = new char[size];

setchar(size, masss);

printchar(size, masss);

Minchar(size, masss);

Maxchar(size, masss);

changechar(size, masss);

}

2.

FUNCTION.H

#pragma once

#define Ukr Ukraine

#define england UK

#define america USA

#ifdef Ukr

#ifdef Ukraine

cout << Ukraine.maincity

#endif

#endif

struct Kiyiv

{

char name[6]{ "Kiyiv" };

int people = 2966300;

int squeare = 839;

int hight = 179;

};

struct Ukraine

{

Kiyiv maincity;

int population = 42000000;

char president[9]{ "Zeleskiy" };

int squeare = 603628;

int neighbours = 7;

};

struct London

{

char name[7]{ "London" };

int people = 8982000;

int squeare = 1572;

int hight = 11;

};

struct UK

{

London maincity;

int population = 66650000;

char president[10]{ "Elisabeth" };

int squeare = 130395;

int neighbours = 5;

};

struct Washington

{

char name[11]{ "Washington" };

int people = 705749;

int squeare = 177;

int hight = 120;

};

struct USA

{

Washington maincity;

int population = 328200000;

char president[9]{ "Trump" };

int squeare = 603628;

int neighbours = 2;

};

PROG.CPP

#define \_CRT\_SECURE\_NO\_WARNINGS

#include <iostream>

#include <Windows.h>

#include <math.h>

using namespace std;

#define Ukr Ukraine

#define england UK

#define america USA

struct Kiyiv

{

char name[6]{ "Kiyiv" };

int people = 2966300;

int squeare = 839;

int hight = 179;

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struct Ukraine

{

Kiyiv maincity;

int population = 42000000;

char president[9]{ "Zeleskiy" };

int squeare = 603628;

int neighbours = 7;

};

struct London

{

char name[7]{ "London" };

int people = 8982000;

int squeare = 1572;

int hight = 11;

};

struct UK

{

London maincity;

int population = 66650000;

char president[10]{ "Elisabeth" };

int squeare = 130395;

int neighbours = 5;

};

struct Washington

{

char name[11]{ "Washington" };

int people = 705749;

int squeare = 177;

int hight = 120;

};

struct USA

{

Washington maincity;

int population = 328200000;

char president[9]{ "Trump" };

int squeare = 603628;

int neighbours = 2;

};

int main()

{

SetConsoleCP(1251);

SetConsoleOutputCP(1251);

}