// ConsoleApplication3.cpp: определяет точку входа для консольного приложения.

//

#include "stdafx.h"

#include <string>

#include<iostream>

using namespace std;

class Pupil

{

int year;

int subjectsCount;

int\* marks;

public:

string name;

void set\_subjectsCount(int value)

{

if (value < 1)

{

throw "Subjects must be > 0";

}

subjectsCount = value;

marks = new int[subjectsCount];

}

int get\_subjectsCount()

{

return subjectsCount;

}

void set\_year(int value)

{

if (value > 2012 && value < 2001)

{

throw "You are not a child";

}

year = value;

}

int get\_year()

{

return year;

}

static int pupisCount; // <-- Опис статичного поля

Pupil(string name, int year, int subjectsCount, int firstMark, ...)

{

this->name = name;

set\_year(year);

set\_subjectsCount(subjectsCount);

int\* temp = &firstMark;

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

{

marks[i] = temp[i];

}

Pupil::pupisCount++; // <-- Звертання до статичного поля ім\_я\_\_класу :: ім\_я\_\_статичного\_поля

}

bool isPanishedBoy()

{

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

{

if (marks[i] < 4)

{

return true;

}

}

return false;

}

double averageMark()

{

int sum = 0;

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

{

sum += marks[i];

}

return (double)sum / subjectsCount;

}

int getGoodMarksCount()

{

int goodMarksCount = 0;

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

{

if (marks[i] >= 10)

{

goodMarksCount++;

}

}

return goodMarksCount;

}

static int getBadMarksCount(int subjectsCount, int firstMark, ...) // <-- Статиична функції

{

// Звертаємось тільки до інших статичних полів і статичних методів

int count2 = 0;

int\* temp = &firstMark;

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

{

if (temp[i] < 4)

count2++;

}

return count2;

}

~Pupil()

{

delete[] marks;

Pupil::pupisCount--;

}

};

int Pupil::pupisCount = 0;

int main()

{

//int c2=Pupil::getBadMarksCount(3, 2, 5, 3); //<-- Виклик статичних ж

//printf("Count2 =%d\n",c2);

Pupil\* pupil1 = new Pupil("Ivan", 2005, 5, 10, 8, 11, 11, 2);

Pupil\* pupil2 = new Pupil("Ivan", 2005, 5, 10, 8, 11, 11, 2);

Pupil\* pupil3 = new Pupil("Ivan", 2005, 5, 10, 8, 11, 11, 2);

printf("Pupils count = %d\n",Pupil::pupisCount);

delete pupil2;

printf("Pupils count = %d\n", Pupil::pupisCount);

//if (pupil->isPanishedBoy())

// printf("You are bad boy\n");

//else

// printf("You are good boy\n");

system("pause");

return 0;

}