#include <iostream>

#include <string.h>

using namespace std;

struct University {

char faculty[8];

char teacher[50];

char subject[10];

int sizeGroup;

int durationLesson;

float workDay;

};

//F0 need UPGRADE

void scanForm(University \*form, const int count) {

for (int i = 0; i < count; i++) {

cout << "Enter name Faculty: ";

cin >> form[i].faculty;

cout << "Enter name Teacher: ";

cin >> form[i].teacher;

cout << "Enter name Subject: ";

cin >> form[i].subject;

cout << "Enter size Group: ";

cin >> form[i].sizeGroup;

cout << "Enter work Day: ";

cin >> form[i].workDay;

cout << "Enter duration Lesson: ";

cin >> form[i].durationLesson;

cout << endl;

}

}

//F1

int avgTimeLesson(University \*form, int count) {

int avg = 0;

for (int i = 0; i < count; i++) {

avg += form[i].durationLesson;

}

return avg/count;

}

//F2

int formLessonDay(University \*form, int count, float day) {

int countDay = 0;

for (int i = 0; i < count; i++) {

if (day == form[i].workDay) {

countDay++;

}

}

return countDay;

}

//F4 + need UPGRADE

void searchLateStudent(University \*form, int count) {

for (int i = 0; i < count; i++) {

if (form[i].sizeGroup < 10) {

cout << "name Faculty: "

<< form[i].faculty << endl;

cout << "name Teacher: "

<< form[i].teacher << endl;

cout << "name Subject: "

<< form[i].subject << endl;

cout << "size Group: "

<< form[i].sizeGroup << endl;

cout << "work Day: "

<< form[i].workDay << endl;

cout << "duration Lesson: "

<< form[i].durationLesson << endl;

}

}

}

//F5

int searchTeachStatistics(University \*form, int count, char \*teach) {

int countTeach = 0;

for (int i = 0; i < count; i++) {

if (!strncmp(teach, form[i].teacher, strlen(teach))) {

countTeach++;

}

}

return countTeach;

}

//F7

float searchMoreLesson(University\* form, int count) {

int maxLesson = 0;

float workDay = 0;

for (int i = 0; i < count; i++) {

int ii = 0;

for (int j = 0; j < count; j++) {

if ( form[i].workDay == form[j].workDay) {

ii++;

}

}

if (ii > maxLesson) {

maxLesson = ii;

workDay = form[i].workDay;

}

}

return workDay;

}

int main () {

int n;

float daySearch;

char teach[50];

cout << "Enter N lesson: ";

cin >> n;

University \*lesson = new University[n];

scanForm(lesson, n);

cout << "Teacher form: ";

cin >> teach;

cout << "Teacher make "

<< searchTeachStatistics(lesson, n, teach)

<< " lesson(s)" << endl;

cout << "Enter work Day for search statistics: ";

cin >> daySearch;

cout << "Amount lesson for the day "

<< daySearch << ": "

<< formLessonDay(lesson, n, daySearch)

<< endl;

cout << "Average time lesson: "

<< avgTimeLesson(lesson, n)

<< " minutes" << endl;

cout << "Work day: "

<< searchMoreLesson(lesson, n)

<< endl;

cout << "Exodus list: " << endl;

searchLateStudent(lesson, n);

system("pause");

return 0;

}