*#include* <iostream>

*#include* <cmath>

*#include*<iomanip>

using namespace std;

float applecost(){

    double sum = 0;

    int i = 2;

    int j = 0;

*for*(i;i<=100;i\*=2)

    {

        sum = sum + i\*0.2;

        j++;

    }

*return* sum/j;

}

bool isprime(int n){

*if*(n==1&&n==2&&n==3)

    {

*return* true;

    }

*for*(int i = 2;i<sqrt(n);i++)

    {

*if*((n % i) == 0){

            cout<<n<<"不是素数"<<endl;

*return* false;

        }

    }

    cout<<n<<"是素数"<<endl;

*return* true;

}

double avrsalary(int rens){

    double salary[20];

    double all = 0;

*for*(int i = 0;i < rens;i++)

    {

        cout<<"请输入第"<<i+1<<"个人的工资"<<endl;

        cin>>salary[i];

        all = all + salary[i];

*// cout<<all;*

    }

    cout<<fixed<<setprecision(2)<<"平均工资为:"<<all/rens<<endl;

*return* all/rens;

}

typedef struct

{

    int citynum;

    char name[17];

    double longitude;

    double lagitude;

} city;

city arr[20];

void incities(int cities){

*for*(int i = 0;i < cities;i++){

        cout<<"请输入第"<<i+1<<"个城市编号:"<<endl;

        cin>>arr[i].citynum;

        cout<<"请输入第"<<i+1<<"个城市名称:"<<endl;

        cin>>arr[i].name;

        cout<<"请输入第"<<i+1<<"个城市经度"<<endl;

        cin>>arr[i].longitude;

        cout<<"请输入第"<<i+1<<"个城市纬度"<<endl;

        cin>>arr[i].lagitude;

    }

};

void outcities(int cities){

    cout<<"-------------------------------------"<<endl;

    cout<<"|城市名称|城市编号|城市经度|城市维度|"<<endl;

*for*(int i = 0;i < cities;i++){

        cout<<"|    "<<arr[i].name<<"|\t "<<arr[i].citynum<<"|  "<<arr[i].longitude<<

        "|   "<<arr[i].lagitude<<"|"<<endl;

    }

}

int main(){

    int n;

    int rens;

    int cities;

    double salary[20];

    cout<<"一.循环结构:"<<endl;

    cout<<applecost()<<endl;

    cout<<"二.数组与函数"<<endl;

    cout<<"2.1:"<<endl;

    cout<<"请输入正整数判断是否为素数:";

    cin>>n;

    isprime(n);

    cout<<"2.2:"<<endl;

    cout<<"请输入统计人数:";

    cin>>rens;

    avrsalary(rens);

    cout<<"三.结构体、数组与函数"<<endl;

    cout<<"3.1:"<<endl;

    cout<<"请输入要写入的城市数量:"<<endl;

    cin>>cities;

    incities(cities);

    outcities(cities);

    system("pause");

*return* 0;

}

**以上为代码，我将全部任务整合为了一个文件。（截图在后面）**

**亮：我学会了如何将结构体嵌入数组中，以便调取使用。**

**考：如何实现各种数组的动态内存变化？答：没门**

**帮：如何将结构体嵌入结构体？**

