

406410114 UVA10226 Hardwood species

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#include <bits/stdc++.h>
using namespace std;

struct TREE{
    string name;
    int times;
};

bool compare( const TREE &a,const TREE &b ){
    if ( a.name < b.name )
        return true;
    else
        return false;
}

int main(){
    int i,j,k,t_num;
    cin >> t_num;
    string s;
    getline( cin , s );
    getline( cin , s );
    while ( t_num-- ){
        //cout << "while";

        TREE tree[10001];
        int var = 0;
        for ( i = 0;i<10001 ;i++ )
            tree[i].times= 0;
        while(getline( cin , s ) && s !="" ){
            //cout << "s: " <<s <<endl;
            bool isrepeat = false;

            for ( i = 0;i<var;i++ ){
                if ( tree[i].name == s ){
                    isrepeat = true;
                    tree[i].times++;
                    break;
                }
            }

            if ( isrepeat == false ){
                tree[var].name = s;
                tree[var].times++;
                var++;
            }
        }

        long long int total_times = 0;
        for( i = 0;i<var;i++ )
            total_times+=tree[i].times;

        //cout << "total_times:" <<total_times<<endl;
        sort( tree,tree+var,compare );

        for( i = 0;i<var;i++ ){
            double res = double( tree[i].times ) / double( total_times);
            res *= 100;
            if ( res != 0 )
                cout << tree[i].name << " " << fixed<<setprecision(4) << res<<endl;
        }

        if ( t_num >=1 )
            cout <<endl;
    }
    return 0;
}
```