#include<stdio.h>

#include<iostream>

#include<string>

#include<map>

using namespace std;

map<string,int>s;

map<string,int>::iterator it1;

map<string,map<string,int> >p;

map<string,map<string,int> >::iterator it2;

int main()

{

int t;

cin>>t;

while(t--)

{

int n;

cin>>n;

while(n--)

{

string w,z;

int num;

cin>>w>>z>>num;

p[z][w]+=num;

}

for(it2=p.begin();it2!=p.end();it2++)

{

cout<<it2->first<<endl;

for(it1=it2->second.begin();it1!=it2->second.end();it1++)

{

cout<<" |-->"<<it1->first<<'('<<it1->second<<')'<<endl;

}

}

s.clear();

p.clear();

}

}