

```

package player;

import java.util.Iterator;

import edu.neu.ccs.demeterf.demfgen.lib.List;

/** A class for holding info about raw material types */
public class RelationStuff {
    int clauses; //how many clauses this relation has
    int relation; //relation number
    int weight; //the total weight of this type
    double breakeven; //breakeven for this relation number
    double value; //value for this type\
    //what is in this relation's relation chain
    List<RelationStuff> chain = List.<RelationStuff>create();

    RelationStuff(int c, int r, int w, double f) {
        this.clauses = c;
        this.relation = r;
        this.weight = w;
        this.breakeven = f;
        this.value = 0;
    }

    /** Returns whether this has the greatest value in its relation chain */
    public boolean isGreatestInChain() {
        Iterator<RelationStuff> iter = chain.iterator();
        while(iter.hasNext()) {
            RelationStuff next = iter.next();
            if (this.value < next.value) {return false;}
        }
        //if we got here, it is the greatest value
        return true;
    }

    /** equals override */
    public boolean equals(Object o) {
        if (o instanceof RelationStuff) {
            RelationStuff that = (RelationStuff)o;
            return this.clauses == that.clauses
                && this.relation == that.relation
                && this.weight == that.weight
                && this.breakeven == that.breakeven
                && this.value == that.value
                && this.chain == that.chain;
        }
        else return false;
    }
}

```