Loan Approval Application

- **Given**
  - **Loan Amount (35K- 75K)**
  - **Loan Term (24, 36, 72 months)**
- **Don't reject**
  - **Recommend acceptable Amounts and Terms**

bpmNEXT

Decision Model "Make a Good Burger"

- Offered as a DMCommunity.org Challenge
- Burger ingredient list:

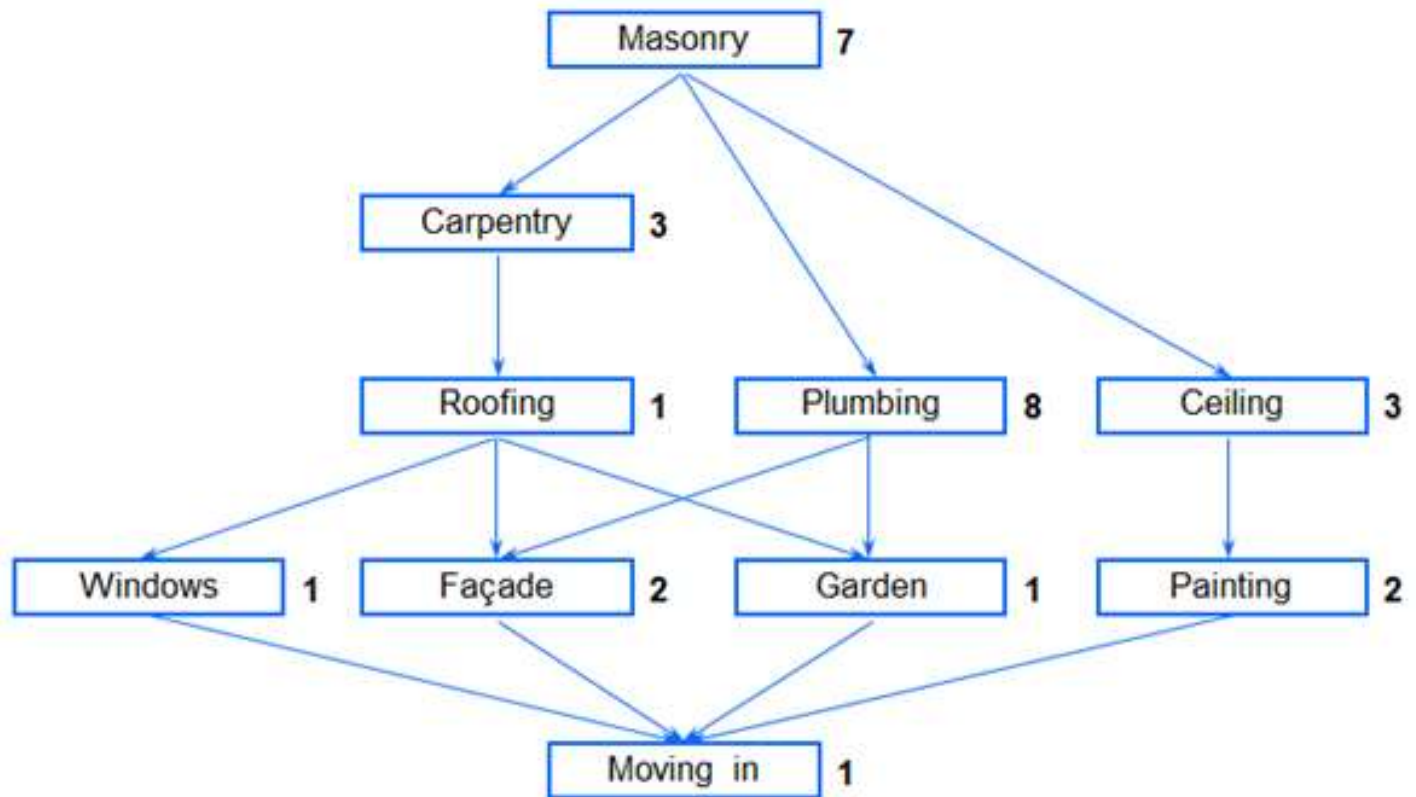| Item	Sodium(mg)	Fat(g)	Calories	Item cost($)
Beef Patty	50	17	220	$0.25
Bun	330	9	260	$0.15
Cheese	310	6	70	$0.10
Onions	1	2	10	$0.09
Pickles	260	0	5	$0.03
Lettuce	3	0	4	$0.04
Ketchup	160	0	20	$0.02
Tomato	3	0	9	$0.04

Good Burger Constraints

- Health requirements:
  - Total sodium < 3000 mg
  - Total fat < 150 grams
  - Calories < 3000

- Taste quality standards:
  - keep the servings of ketchup and lettuce the same
  - keep the servings of pickles and tomatoes the same.

- **Question:** What is the most or least expensive burger you can make?
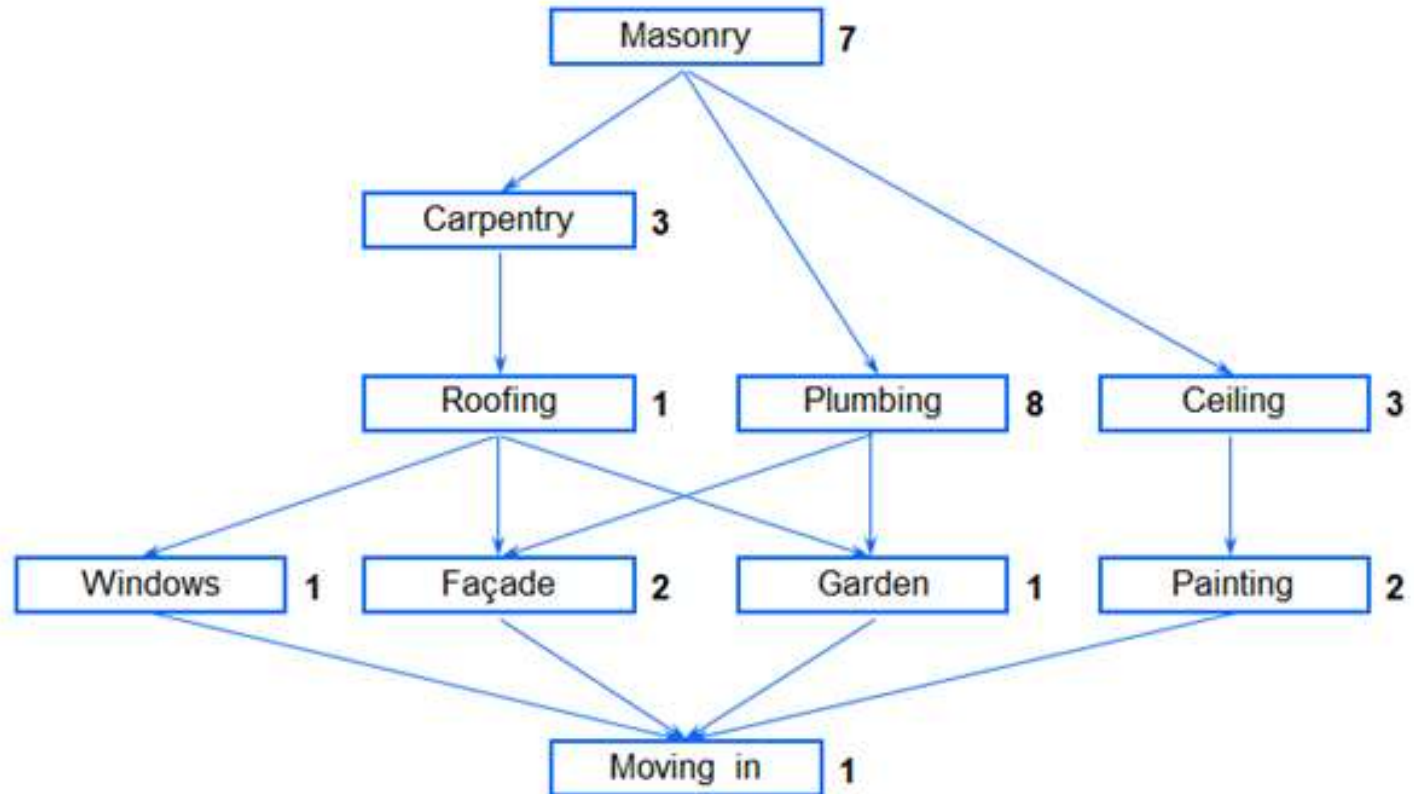
House Construction Activities

Activities:

House Construction with a Worker

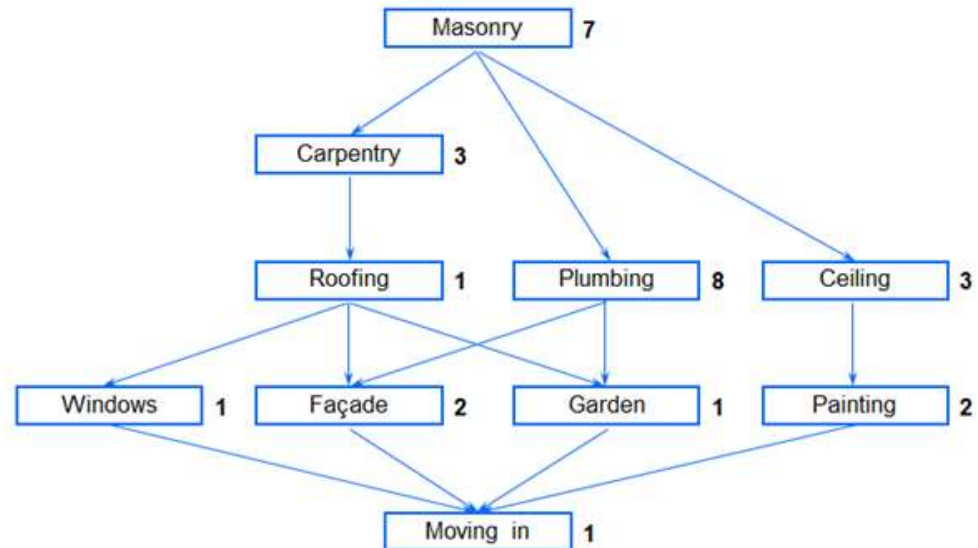Each Activity requires a worker who can do only one job in a time

House Construction with Limited Budget

Limited Budget (consumable resource):

- Each Activity requires at least $1,000 per day
- I have only $15,000 at the beginning
- Bank with give me $15,000 more after 15 days

Activities:

References

- Open Source Business Rules and Decision Management System "OpenRules":
  www.OpenRules.com

- Representing and Solving Rule-Based Decision Models with Constraint Solvers, Jacob Feldman, RuleML 2011 - America, LNCS 7018, pp. 208-221, 2011, Springer-Verlag Berlin Heidelberg 2011

- JSR-331 Standard "Constraint Programming"
  www.JSR331.org

- Contact: jacobfeldman@openrules.com

bpmNEXT