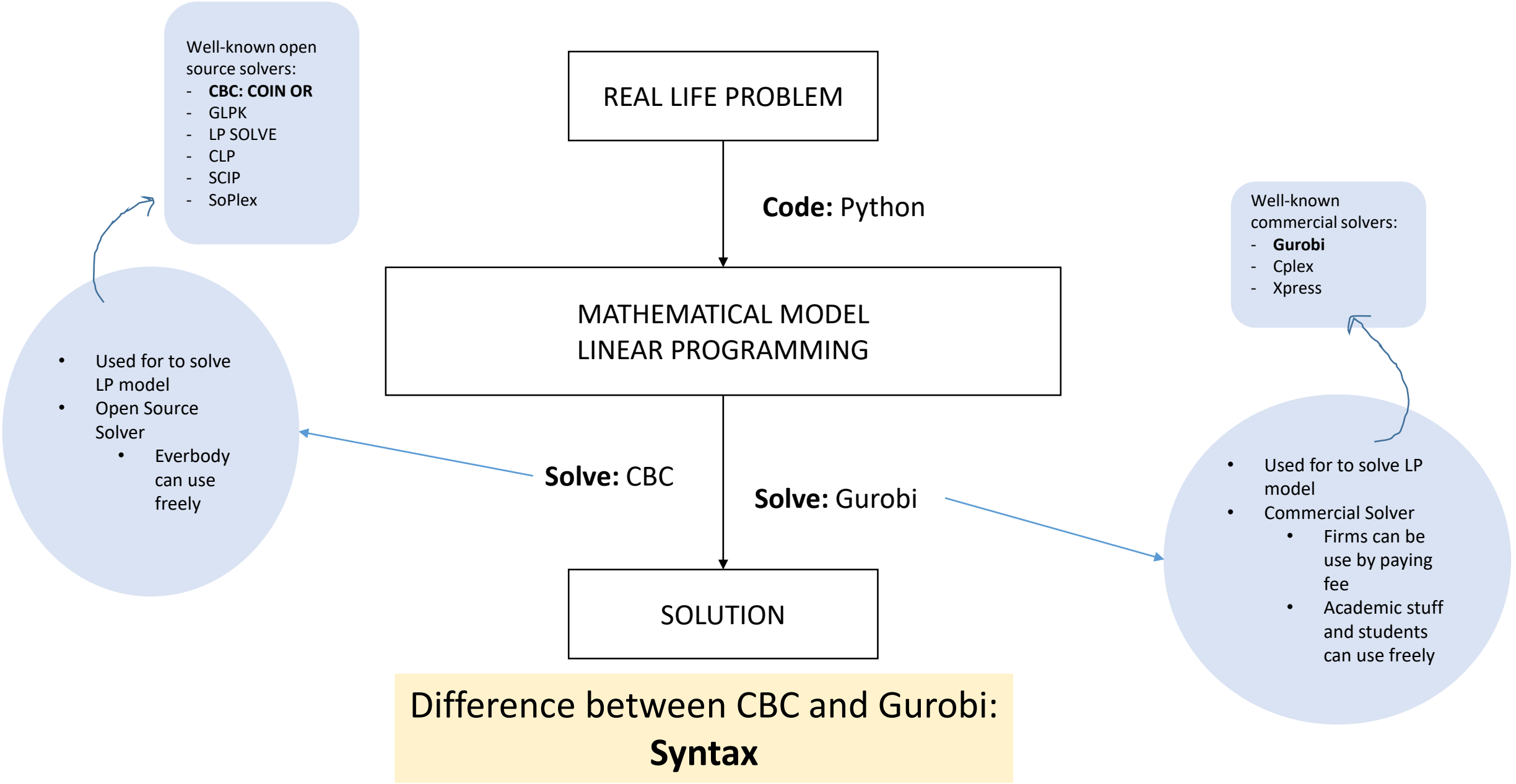

Difference between CBC and Gurobi:
Syntax

DIFFERENCES BETWEEN CBC AND GUROBI

FEATURE	**CBC**	**GUROBI**
Calling functions	from pulp import *	from gurobipy import*
Parameter definition	Same	Same
Creation of the model	prob = LpProblem("Giapetto's_Woodcarving", LpMaximize)	m = Model("ToysProblem")
Decision Variables	X = LpVariable.dicts("x", (Toys), lowBound=0, upBound=None, cat=const.LpInteger)	XVar = {} for i in Toys: XVar[i] = m.addVar(lb = 0, vtype=GRB.INTEGER) m.update()
Objective function	prob += lpSum(X[i]*Cost[i] for i in Toys)	m.setObjective(quicksum(XVar[i]*Profit[i] for i in Toys)) m.modelSense = GRB.MAXIMIZE
Constraints	for j in Skills: prob += lpSum(Requirements[i][j]*X[i] for i in Toys) <= SkillCapacity[j]	for j in Skills: m.addConstr(quicksum(Requirements[i][j]*XVar[i] for i in Toys) <= SkillCapacity[j])

Solve and print solution	prob.solve()
	
	for v in prob.variables():
	if v.varValue > 0.1:
	print(v.name, "=", v.varValue)
	
	print("Total Maximization = ", value(prob.objective))
		m.optimize()
		
		for i in Toys:
		if XVar[i].x > 0.0001:
		print ('XVar(%s)' % (i), XVar[i].x)
		else:
		print ('No solution')