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In [11]: import pulp
from pulp import LpMaximize, LpProblem, LpVariable, lpSum, LpStatus, value, GLPK

prob = LpProblem("Maximize_Seat_and_Greet_Profit", LpMaximize)

couches = LpVariable('couches', lowBound=50, cat='Continuous') # At Least 50 couches
love_seats = LpVariable('love_seats', lowBound=40, cat='Continuous') # At Least 40 Love seats

prob += 850 * couches + 650 * love_seats

prob += 120 * couches + 70 * love_seats <= 9010 #fabric
prob += 40 * couches + 25 * love_seats <= 3500 #stuffing
prob += 3 * couches + 2 * love_seats <= 250 #workers

#solve
prob.writeLP("prob.lp")
prob.solve(GLPK(options=['--ranges', 'prob.sen']))
print("Status:", LpStatus[prob.status])

#results
for v in prob.variables():
    print(f"{v.name} = {v.varValue}")

print(f"Objective = {value(prob.objective)}")

#sensitivity analysis
print("\nSensitivity Analysis:\n")
print(sensitivity_analysis)
```

Status: Optimal  
couches = 50.0  
love\_seats = 43.0  
Objective = 70450.0

Sensitivity Analysis:

Problem:  
Objective: OBJ = 70450 (MAXimum)

No.	Row name	St	Activity	Slack Marginal	Lower bound Upper bound	Activity range	Obj coef range	Obj value at break point	Limiting variable
1	_C1	NL	9010.00000	.	-Inf 9.28571	8800.00000 9500.00000	-9.28571 +Inf	68500.00000 75000.00000	love_seats _C3
2	_C2	BS	3075.00000	425.00000 .	-Inf 3500.00000	3000.00000 3075.00000	-26.00000 +Inf	-9500.00000 +Inf	_C1 +Inf
3	_C3	BS	236.00000	14.00000 .	-Inf 250.00000	230.00000 236.00000	-325.00000 +Inf	-6250.00000 +Inf	_C1 +Inf

Problem:  
Objective: OBJ = 70450 (MAXimum)

No.	Column name	St	Activity	Obj coef Marginal	Lower bound Upper bound	Activity range	Obj coef range	Obj value at break point	Limiting variable
1	couches	NL	50.00000	850.00000 -264.28571	50.00000 +Inf	17.33333 51.75000	-Inf 1114.28571	79083.33333 69987.50000	_C3 love_seats
2	love_seats	BS	43.00000	650.00000 .	40.00000 +Inf	-Inf 43.00000	495.83333 +Inf	63820.83333 +Inf	couches +Inf

End of report