This assignment is a warm-up for constraint programming.Reconsider the warehouse location problem and implement it as a CP model. Avoid binary variables (some are natural here but not all).

The problem consists in assigning n stores to m warehouses to minimize the fixed cost of opening a warehouse and the transportation costs for serving the stores with the open warehouses. A customer can only be served by one warehouse and a warehouse has a capacity on the number of stores it can serve. A simple instance data in Python is as follows:

fixed = 30  
nbStores = 10  
nbWarehouses = 5  
capacity = [1,4,2,1,3]  
supplyCost = [  
   [20,24,11,25,30],  
   [28,27,82,83,74],  
   [74,97,71,96,70],  
   [2,55,73,69,61],  
   [46,96,59,83,4],  
   [42,22,29,67,59],  
   [1,5,73,59,56],  
   [10,73,13,43,96],  
   [93,35,63,85,46],  
   [47,65,55,71,95]  
]

Just upload your python program (or another program if you do not want to use Python) that solves the above instance.