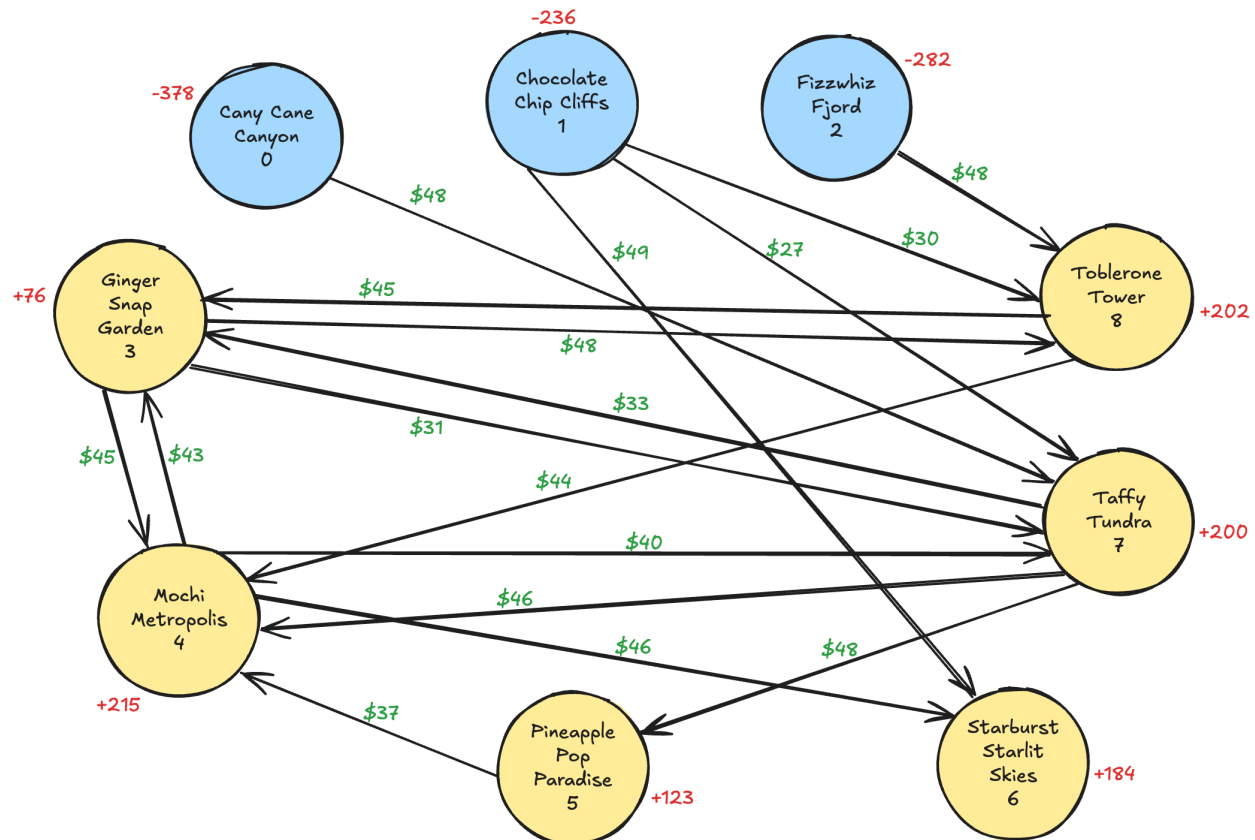


Module 06 – Transshipment Problem

Exploratory Data Analysis

Make a visual graph of your data like what we saw for the sample problem



Model Formulation

Write the formulation of the model into here prior to implementing it in your Excel model. Be explicit with the definition of the decision variables, objective function, and constraints.

Hint: This one differs a bit from the sample problem in terms of Balance-of-Flow

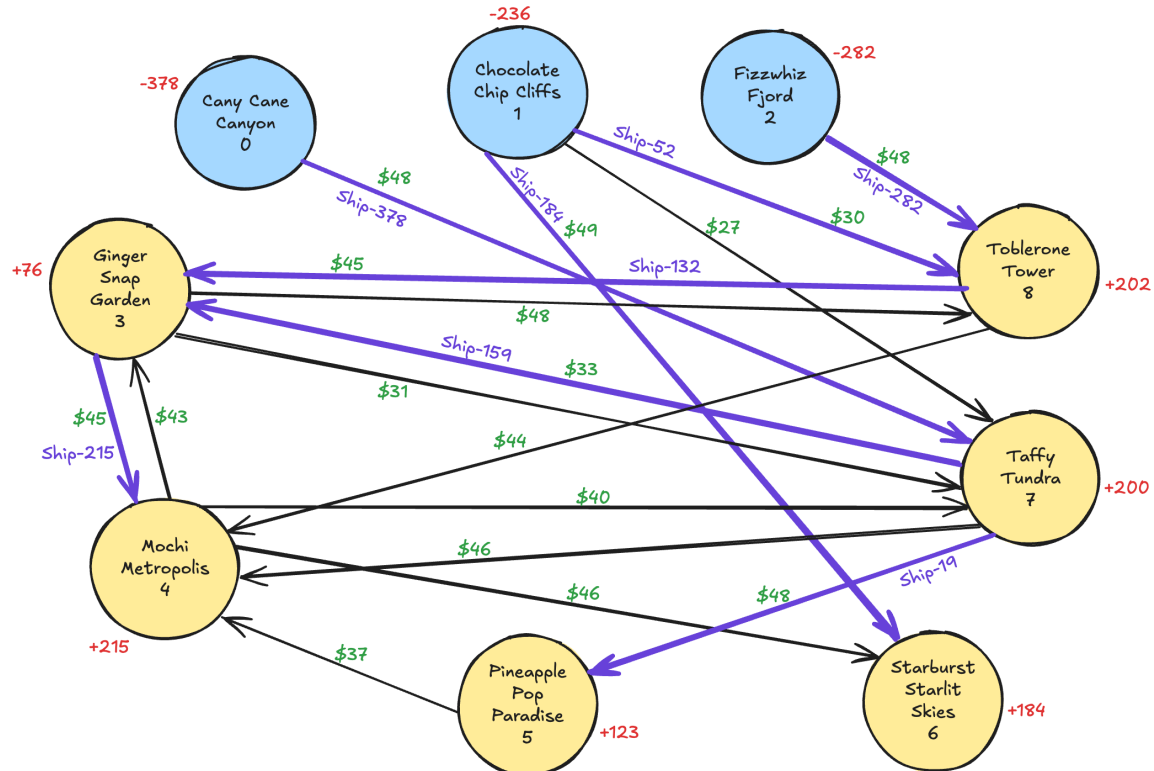
- The shipment must be greater than or equal to 0
- The Net Flow must be greater than or equal to the Supply/Demand

Model Optimized for Minimal Transportation Cost

Implement your formulation into Excel and be sure to make it neat. This section should include:

Total Transportation Cost -->				\$	64,030.00

- My model is recommending an efficient shipment schedule in which transportation cost is minimized to \$64,030.
- Update your graph from the EDA section to bold/color the links being used (and show how much is going through that link)



Model with Stipulation

Please copy the tab of your original model before continuing with the next part to avoid messing up your original solution.

Follow these steps to complete this section:

1. Describe the necessity of the Balance-of-Flow for this problem type
 - a. *Balance-of-Flow for this problem is important because it ensures that supply and demand flow without any troubles. It makes it so supply is utilized to the best it can, so that demand is fully satisfied and so that we can get the most optimal solution.*
2. What happens when you change your model to make Total Supply > Total Demand (i.e. add 115 units to one of the sources)
 - a. *I added 115 units to source 1 which was named Chocolate Chip Cliffs.*
3. What happens when you rerun your model?
 - a. *When I re-ran my model my **Total Transportation Cost** went **down** (by \$1,211) to \$62,819.*
4. What do you need to change to make your model work again?
 - a. *Well by adding the 115 units my model ended up working better for me or my company so im good with the change.*
5. Make the changes and report on your findings.
 - a. *Like I mentioned throughout parts 2 – 4, when I added 115 units to source 1 which was named Chocolate Chip Cliffs and re-ran my model my **Total Transportation Cost** went **down** (by \$1,211) to \$62,819. So, by adding the 115 units to the copy of my model ended up working better for me or my company so I'm good with the change that I tried out.*