**Names**:  
Charlie Frazier  
Ashley Smith  
Megan Campbell  
Gray Sinclair  
Cathleen Williams

In your presentation, make sure to include:

1. The problem the business owner is trying to solve.
   1. Give Erin information on how many tree boughs she can expect to be able to feed the elephants next year, and how much it will reduce food budget.
2. Available data sources? What kind of information do we need?
   1. Elephant’s information (Name, Age, Weight, Height, Sex, Species, Dietary Notes)
   2. Vegetation remover per year (Species, Quantity Removed)
   3. Utility tree trimmers (Name, Time at Company, Vegetation Removed each Year)
   4. Information we need - total consumption of elephants, total tree bough supply, frequency of tree bough supply, tree trimming season, storage availability of tree bough supply, does a certain elephant have a preference, does the vegetation provided by Dan have an associated cost or is this free?, comparison of tree bough to replacement elephant food
3. What would you need/do to prepare the data? Problems with the data?
   1. Standardize data - remove lbs, ft, etc. numbers should be stripped for calculations.
   2. Problems with the data might include: Clarifying vague data, removing null, missing info,
4. Talk about exploratory analysis and KPIs.
   1. KPI: How much money the trees save the zoo/time
   2. KPI: What kind of resources(human, equipment, transportation, time…) does gifting the tree boughs save.
   3. Exploratory analysis techniques that can be used:
      1. Cohort analysis - use to look for patterns existing in certain elephant species and tree species preferred
5. Discuss what would make your results valid/invalid.
   1. Invalid - time at the company, utility tree trimmer’s name,
   2. Valid -
      1. Elephants: species, dietary notes
      2. Vegetation removed per year: quantity removed
6. Who are the stakeholders and how would you present your findings?
   1. Erin - Focus on the savings she can reduce her budget
   2. Dan - Required Total Vegetation Amounts
   3. Board of both Utility company and the zoo - costs associated with operating expenses.

### Scenario 4: Local Zoo and Utility Company

Dan is a representative for a local utility company who has been working with Erin at the local zoo. Erin is head of the elephant department and has been giving the elephants tree boughs removed by Dan and their team. The elephants love the treats and it has helped the zoo save a few dollars! Dan and Erin are trying to plan for next year so Erin can begin to put together her budget for elephant care. They have asked you to assist! At the end of the project, you will be presenting to Erin, Dan, and the boards of both the utility company and the zoo.

### Data Sets

1. Elephants
   * Columns: Name, Age, Weight, Height, Sex, Species, Dietary Notes
   * Example: Ruthie, 1, 13,000 lbs, 10 ft., F, Loxodonta africana, Loves tree boughs!
2. Vegetation removed per year
   * Columns: Species, Quantity Removed
   * Example: C. illinoinensis, 500 lbs.
3. Utility Tree Trimmers
   * Columns: Name, Time at Company, Vegetation Removed each Year
   * Example: Cynthia, 5 years, 300 lbs.