**Questions and Report Structure**

**Component analysis**

1. Reflection on PCA/ICA
   * What are likely candidates for early PCA dimensions?
   * What might ICA dimensions look like?
2. What proportion of variance is explained by each PCA dimension?
3. PCA dimensions
   * What are the first few components? What might they represent?
   * How can you use this information?
4. ICA
   * What are the components that arise?
   * How could you use these components?

**Clustering**

1. Decide on K means clustering or Gaussian mixture methods
   * What are the advantages and disadvantages of each?
   * How will you decide on the number of clusters?
2. Implement clusters
   * Sample central points of the clusters
3. Produce a graphic
   * Visualize important dimensions by reducing with PCA
   * Are there clusters that aren’t very well distinguished? How could you improve the visualization?

**Conclusions**

1. Which of these techniques felt like it fit naturally with the data?
2. How would you use that technique to assist if the company conducted an experiment?
3. How would you use that data to predict future customer needs?