Unit 4 Unsupervised Learning

For each of these scenarios decide if you could use supervised or unsupervised techniques, or both!

1. Define the likelihood that an individual will contract a specific disease
   1. Several features driving complexity to acquire a disease so unsupervised learning is possible
   2. Supervised learning is possible with logistic regression with known testable features acquiring a disease
2. Translate a set of images into variables for modeling
   1. Unsupervised learning as patterns of images can be complex and ambiguous outcome
3. An ecommerce company wants to identify power users
   1. Unsupervised learning as what drives power user creation is not observable
4. That same company wants to see shopping patterns in users
   1. Complexity of shopping patterns and ambiguous outcome is unsupervised learning
5. You want to reduce the number of variables inputting into your random forest model
   1. PCA would help as it is unsupervised learning