



MACHINE

- Unsupervised learning

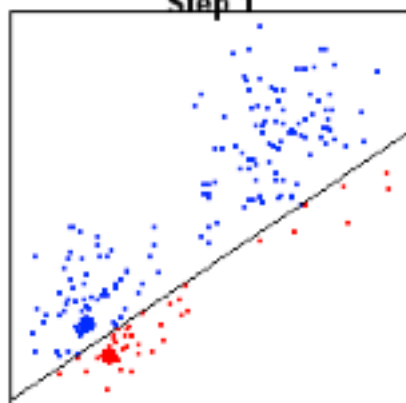




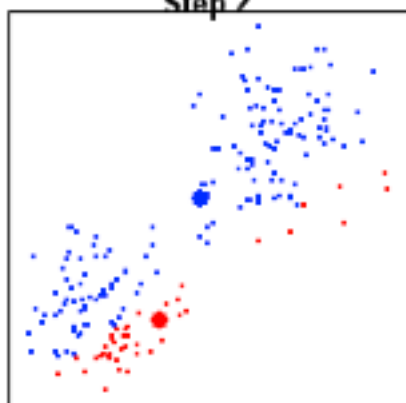
- Clustering

- Association

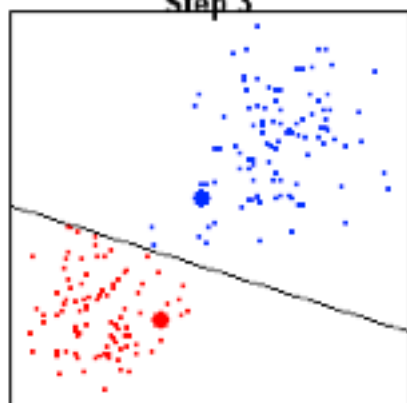
Step 1



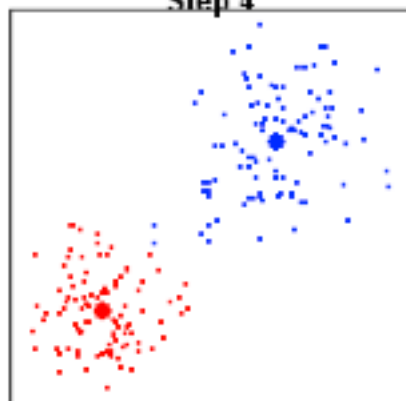
Step 2



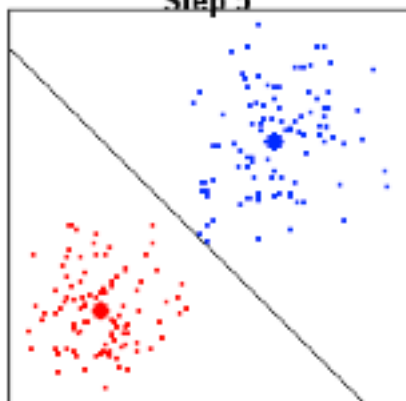
Step 3



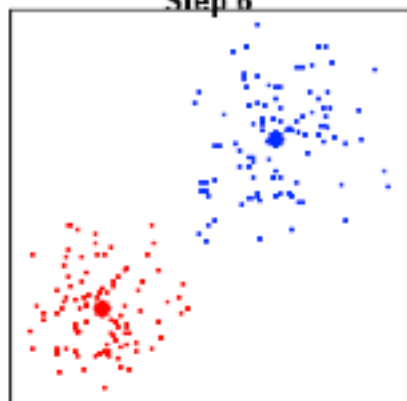
Step 4



Step 5



Step 6

















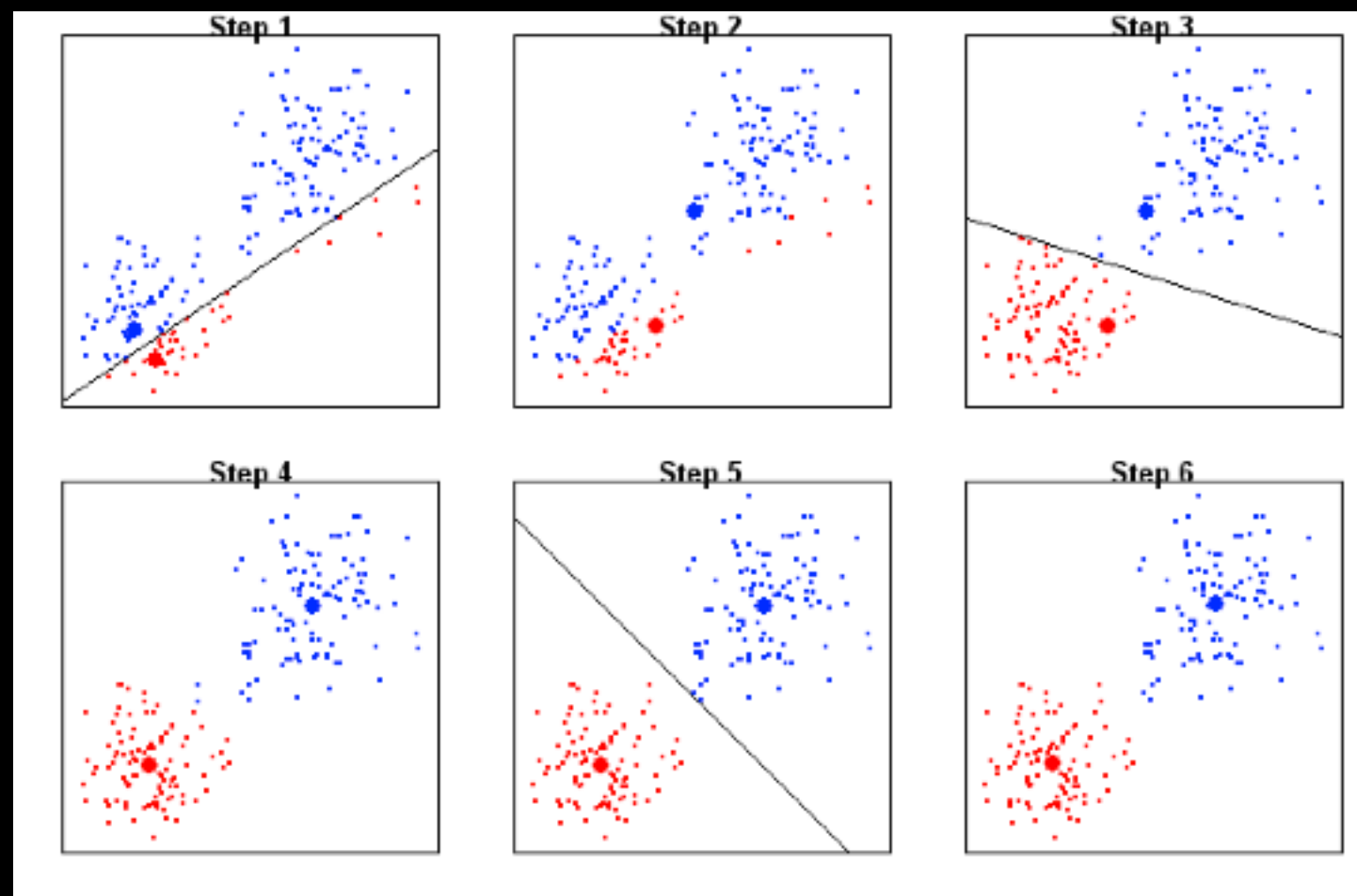






# UNSUPERVISED MACHINE LEARNING

- **Unsupervised learning** is where you only have input data (X) and no corresponding output variables (Y).
- You don't yet know what patterns you wish to find. There is no correct answers.
- Two types of unsupervised learning:
  - **Clustering**: Uncover the inherent groupings in the data, such as grouping customers by purchasing behavior.
  - **Association**: Uncover rules that describe large portions of the data, such as people that buy X also tend to buy Y.



Watch the video on machine learning on the next slide.

Pay close attention to how many machine learning approaches are used to “**classify**” things based on its “**features**,” in particular the role of the **confusion matrix**.

