**Week-4 Summary**

**Theme: K-Means Clustering**

Clustering is an example of unsupervised learning. Unlike supervised methods such as classification and regression, here we do not start with known labels. Instead, the algorithm groups the data into clusters, essentially creating its own labels based on similarities it finds.

Notebook to run: https://github.com/olcaykursun/ML/blob/main/Fall2025/Week4/kmeans\_color\_quantization\_china\_inertia\_elbow.ipynb