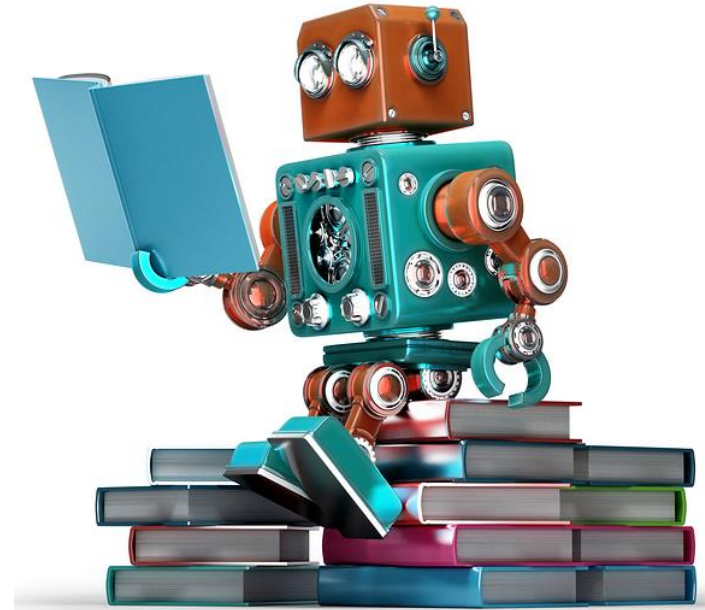


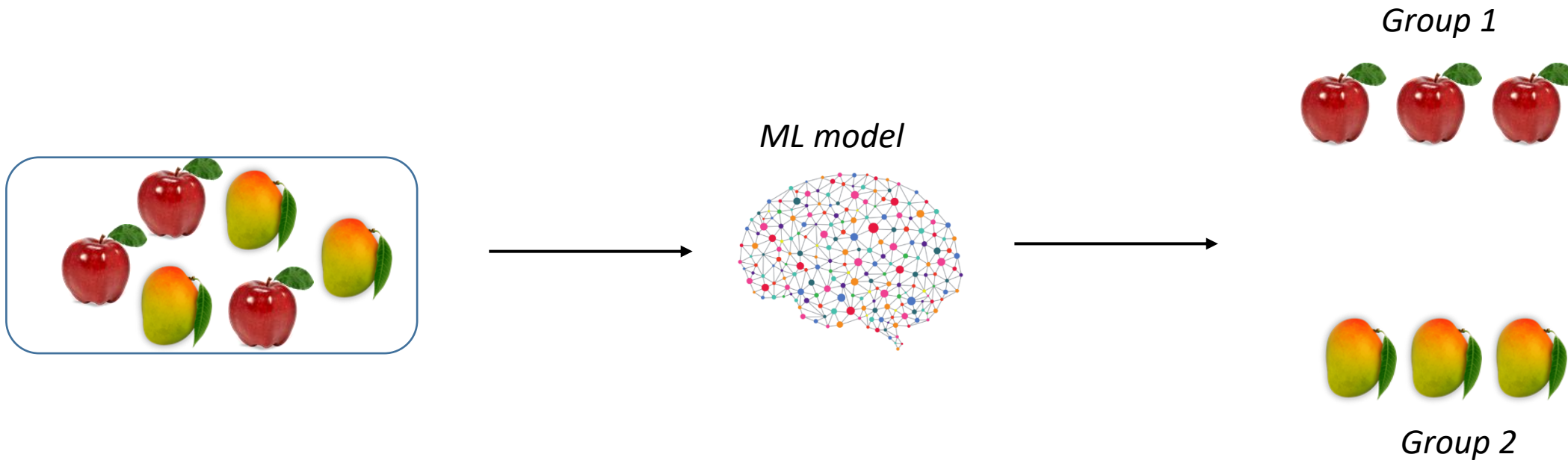
Siddhardhan

Unsupervised Learning Models



Unsupervised Learning

*In Unsupervised Learning, the Machine Learning algorithm learns from **Unlabelled Data***



Types of Unsupervised Learning

Unsupervised Learning

```
graph TD; A[Unsupervised Learning] --> B[Clustering]; A --> C[Association];
```

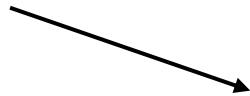
Clustering

Clustering is an unsupervised task which involves grouping the similar data points.

Association

Association is an unsupervised task that is used to find important relationship between data points

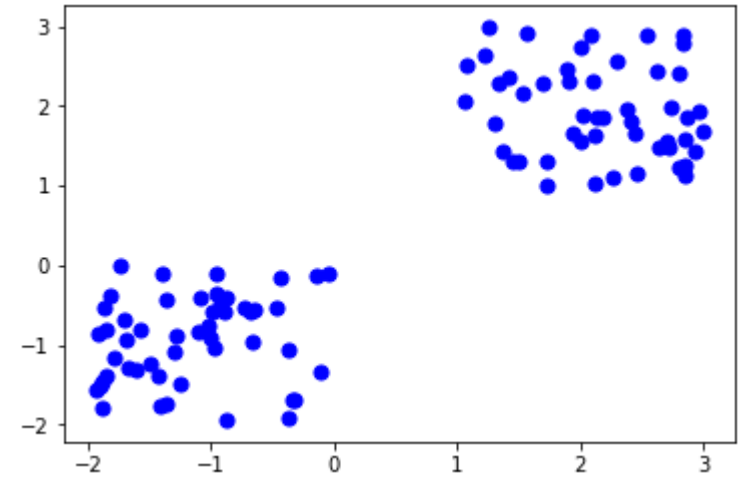
Clustering



ML model

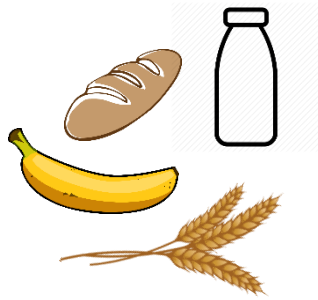


Clusters



Association

Customer 1



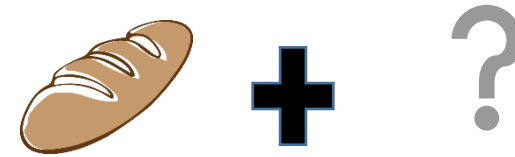
- Bread
- Milk
- Fruits
- wheat

Customer 2



- Bread
- Milk
- Rice
- Butter

Customer 3



Now, when customer 3 goes and buys bread, it is highly likely that he will also buy milk.

Unsupervised Learning Models

1. *K-Means Clustering*
2. *Hierarchical Clustering*
3. *Principal Component Analysis (PCA)*
4. *Apriori*
5. *Eclat*