



SNS COLLEGE OF TECHNOLOGY

Coimbatore - 35



23BAT613 – Artificial Intelligence for Managers

Unit II – Unboxing ML & Its Applications



Presented by

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Design Thinker

Redesigning Common Mind & Business Towards Excellence

1st Indian
Institution
to Implement
& Patent
Design
Thinking
FrameWork

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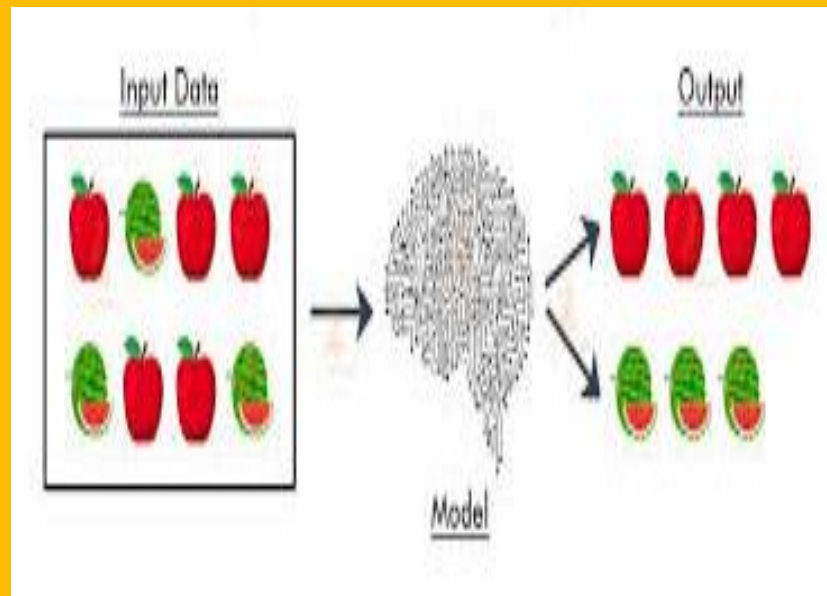
Sri SNS Charitable Trust
CELEBRATING
25
th Year
SILVER JUBILEE

Build an Entrepreneurial Mindset through our Design Thinking FrameWork



Guess the Topic!!!

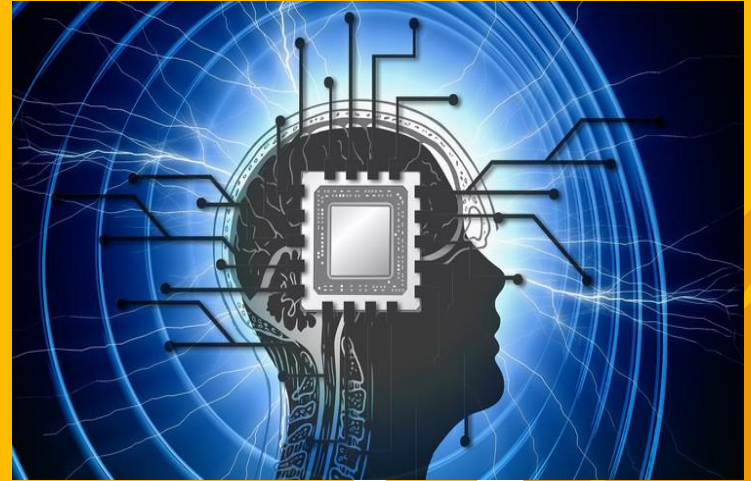
Unsupervised Learning





Recap

- Reason to study unsupervised Learning
- Unsupervised Learning
- Unsupervised Learning in Business
- Unsupervised Learning Process Flow
- Supervised Learning vs Unsupervised Learning





Discussion about....

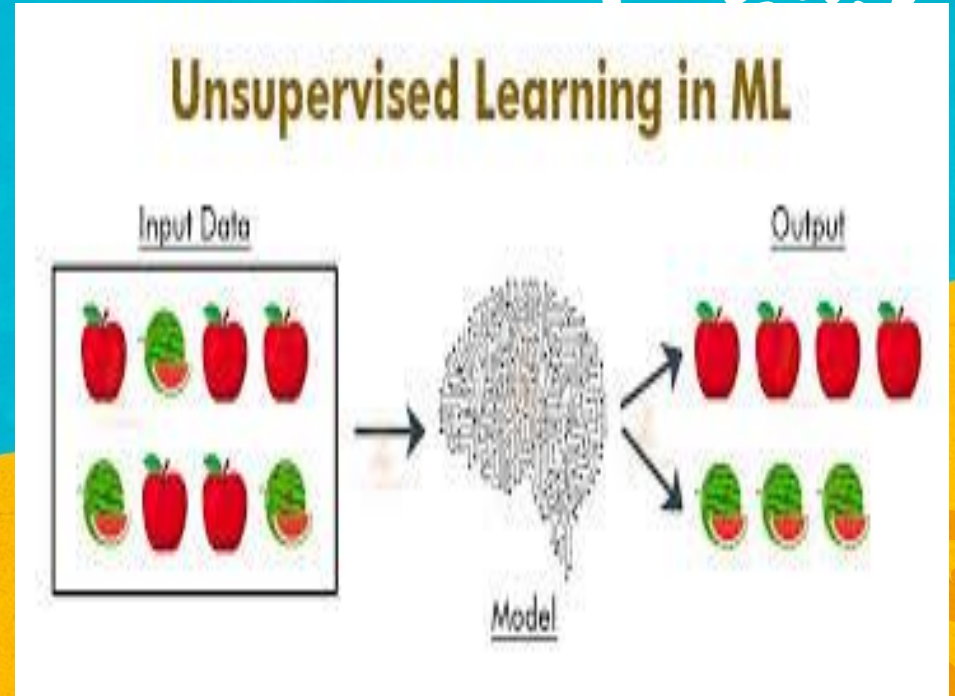
Reason to study unsupervised Learning

- Unsupervised Learning - types
- Unsupervised Learning -Clustering
- Unsupervised Learning – Dimensionality Reduction
- Unsupervised Learning – Association Rule
- Supervised Learning vs Unsupervised Learning



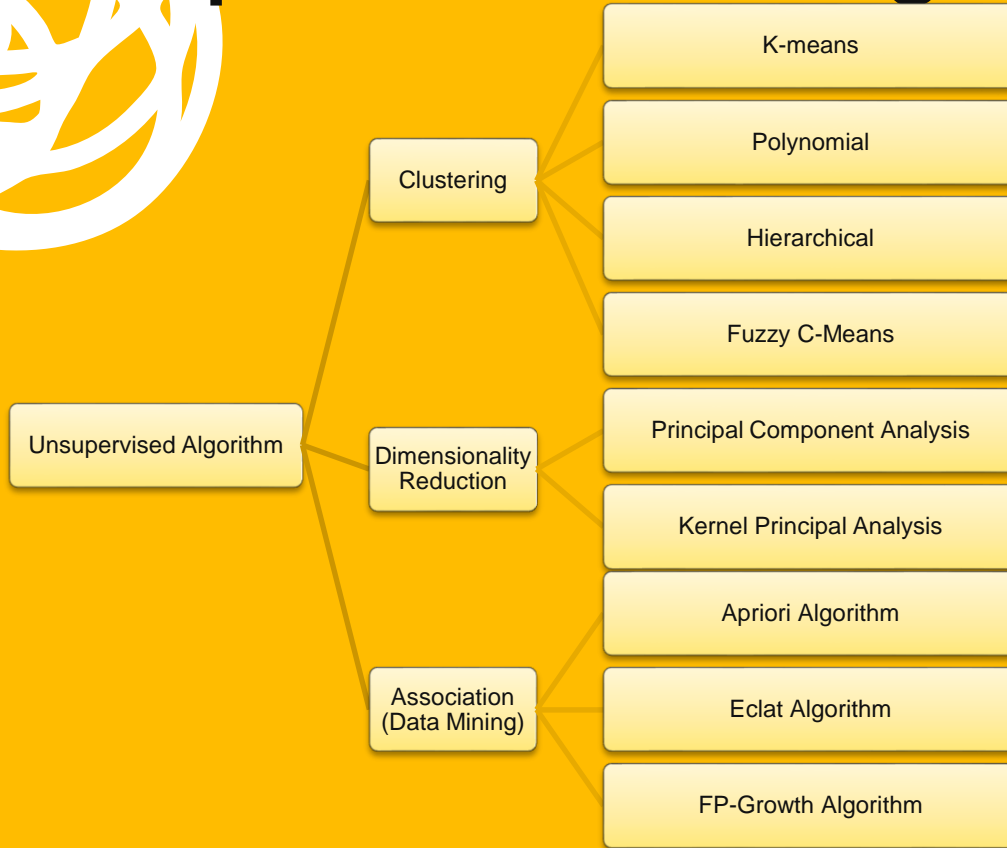


Reason to study Supervised Learning





Unsupervised Learning





Unsupervised Learning - Clustering

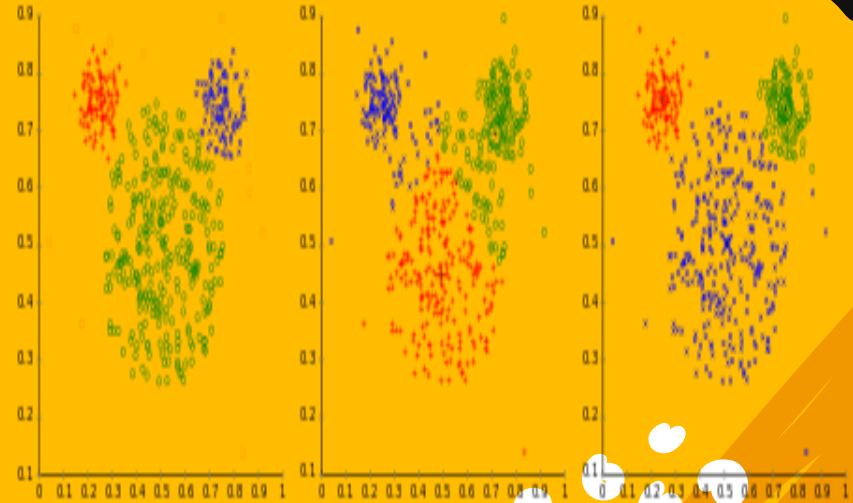


Different cluster analysis results on "mouse" data set:

Original Data

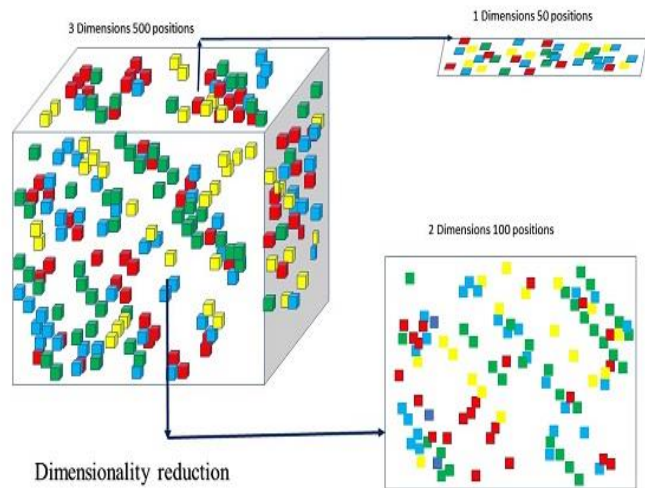
k-Means Clustering

EM Clustering





Unsupervised Learning Dimensionality Reduction



Policies

Dimensionality Reduction

- Reducing Poverty
- Handling Inflation
- Proper Budgeting

Economic Policy

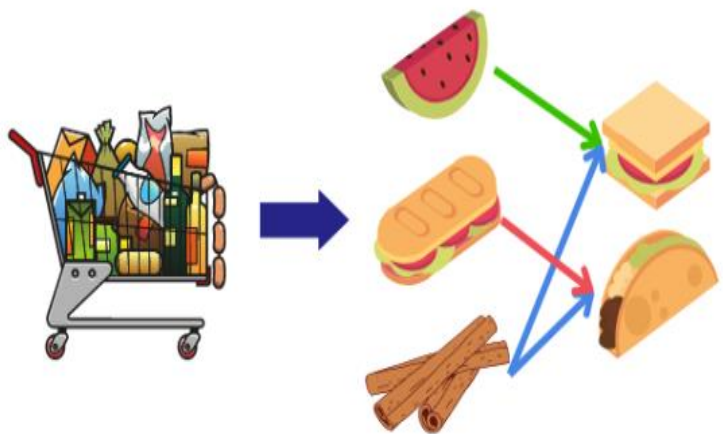
- Constructing Roads, Bridges, etc.
- Structuring public Transport
- Adequate water storage

Infrastructure Policy



Unsupervised Learning Association Rule

Association Rule Learning



"93% of people who purchased item A also purchased item B"



Customer 1



Customer 2



Customer 3



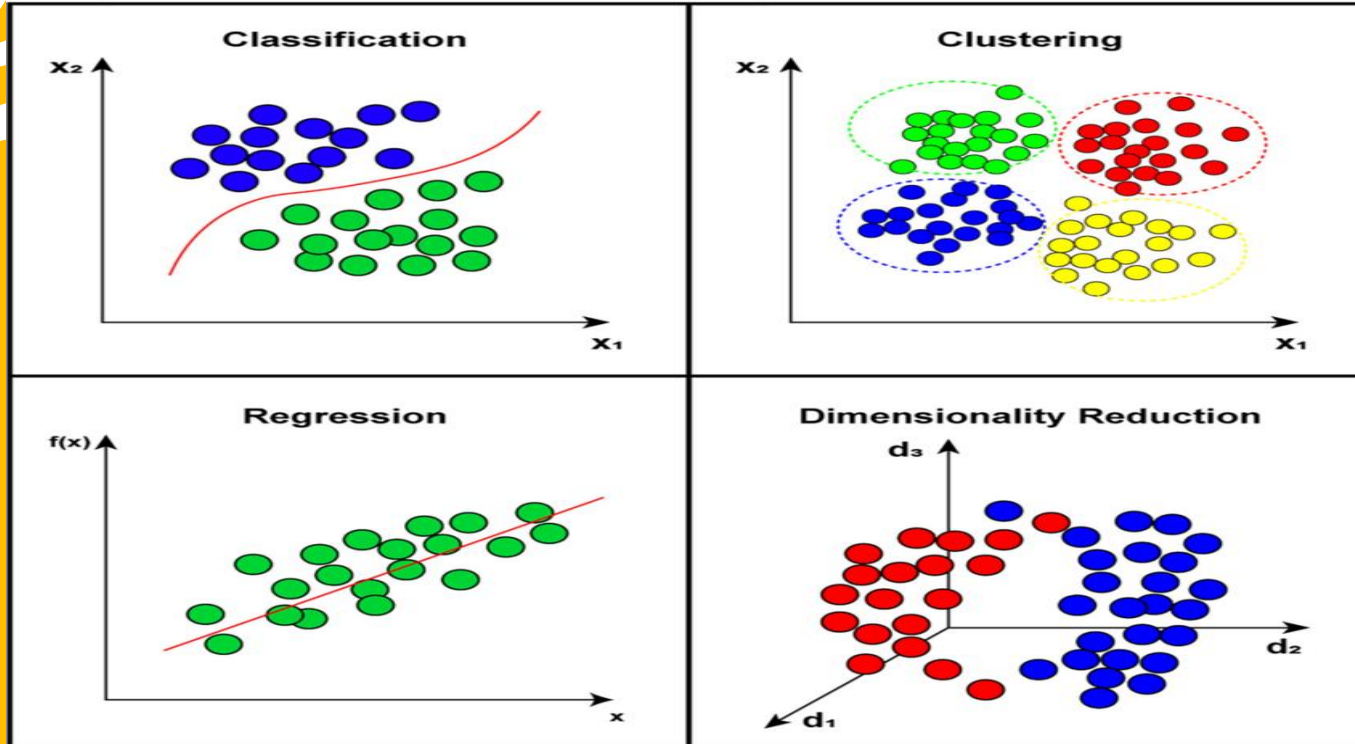
Customer n



Supervised Learning vs Unsupervised Learning

Supervised Learning

Unsupervised Learning





Knowledge Check

Which of the following is NOT a type of unsupervised learning?

- X A) Clustering
- X B) Dimensionality Reduction
- X C) Regression
- X D) Association Mining
- X **Answer: Regression**



Summary

- Reason to study unsupervised Learning
 - Unsupervised Learning - types
 - Unsupervised Learning -Clustering
 - Unsupervised Learning – Dimensionality Reduction
 - Unsupervised Learning – Association Rule
 - Supervised Learning vs Unsupervised Learning



WMA



References

- <https://stl.tech/blog/introduction-to-machine-learning-and-its-applications/>
- <https://www.geeksforgeeks.org/types-of-machine-learning/>





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Thanks!

