



SNS COLLEGE OF TECHNOLOGY

Coimbatore - 35



23BAT615 – Artificial Intelligence for Managers

Unit III – Unboxing AI & Its Applications



Presented by

Ms.S.D.Shamini

Design Thinker

Redesigning Common Mind & Business Towards Excellence

1st Indian
Institution
to Implement
& Patent
Design
Thinking
FrameWork

sns
INSTITUTIONS
www.snsgroups.com

Sri SNS Charitable Trust
CELEBRATING
25th Year
SILVER JUBILEE

Build an Entrepreneurial Mindset through our Design Thinking FrameWork



Guess the Topic!!!



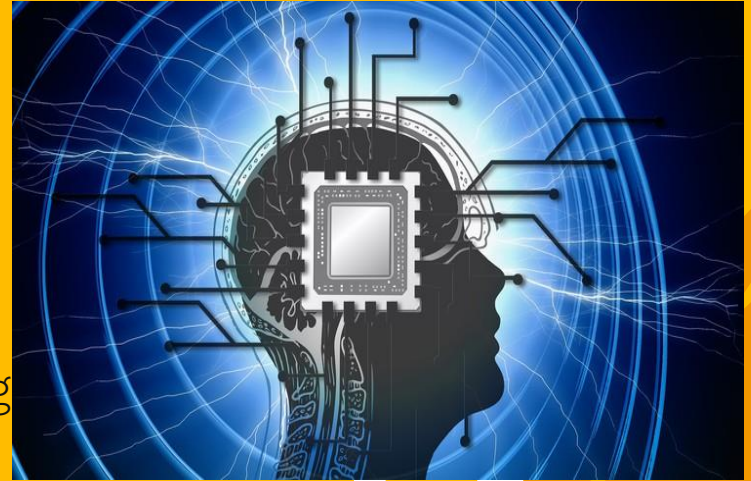
KNN





Recap

- Reason to study Random Forest
- Random Forest Algorithm
- Random Forest Algorithm steps
- Application of Random Forest
- Random Forest Algorithm Use cases
- Random Forest in Machine Learning





Discussion about....

Reason to study KNN

- KNN Algorithm
- KNN Algorithm Steps
- KNN Application
- KNN in ML





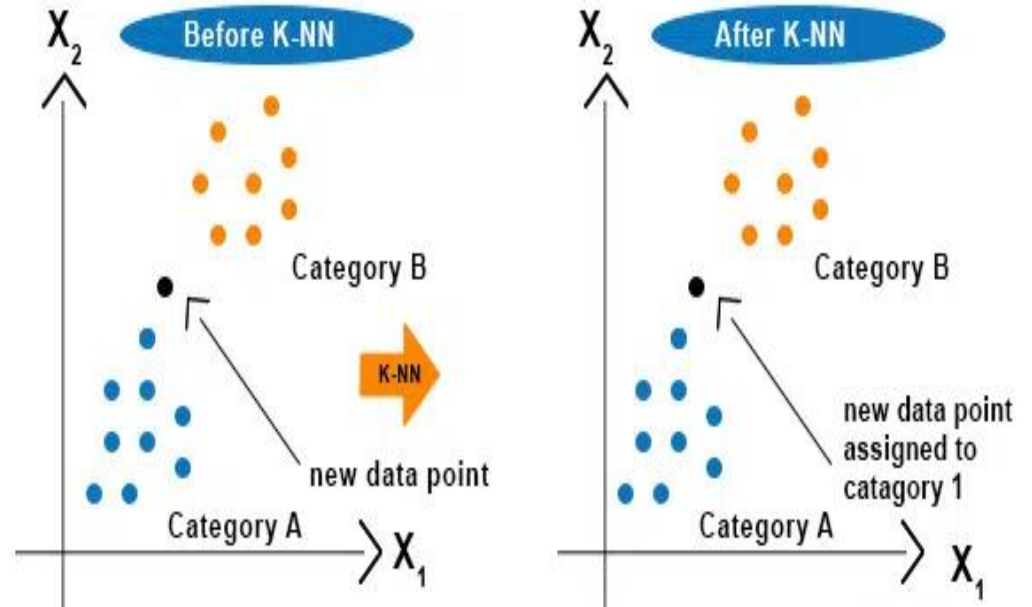
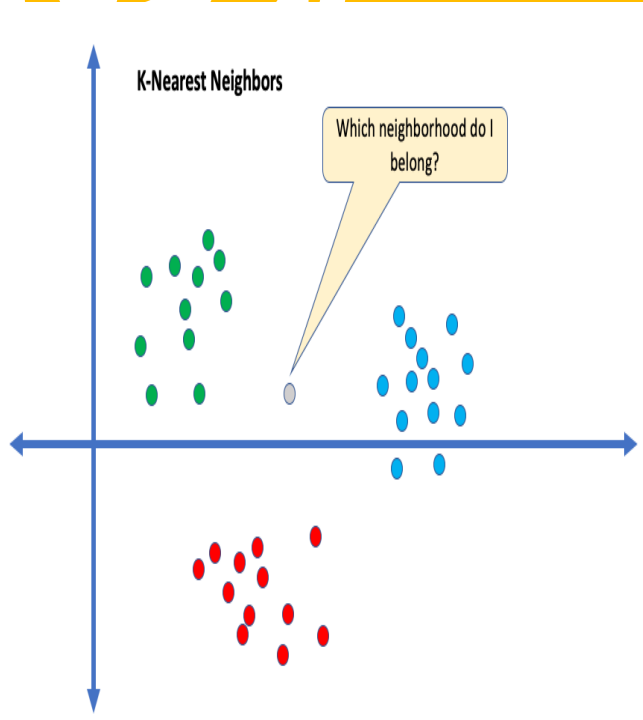
Reason to study KNN



Independent variables/predictors		Target Variable (Y)
<i>Acid durability (in Seconds)</i>	<i>Strength (Kg/Square meter)</i>	<i>Paper tissue Quality</i>
7	7	Good
7	4	Good
3	4	Bad
1	4	Good

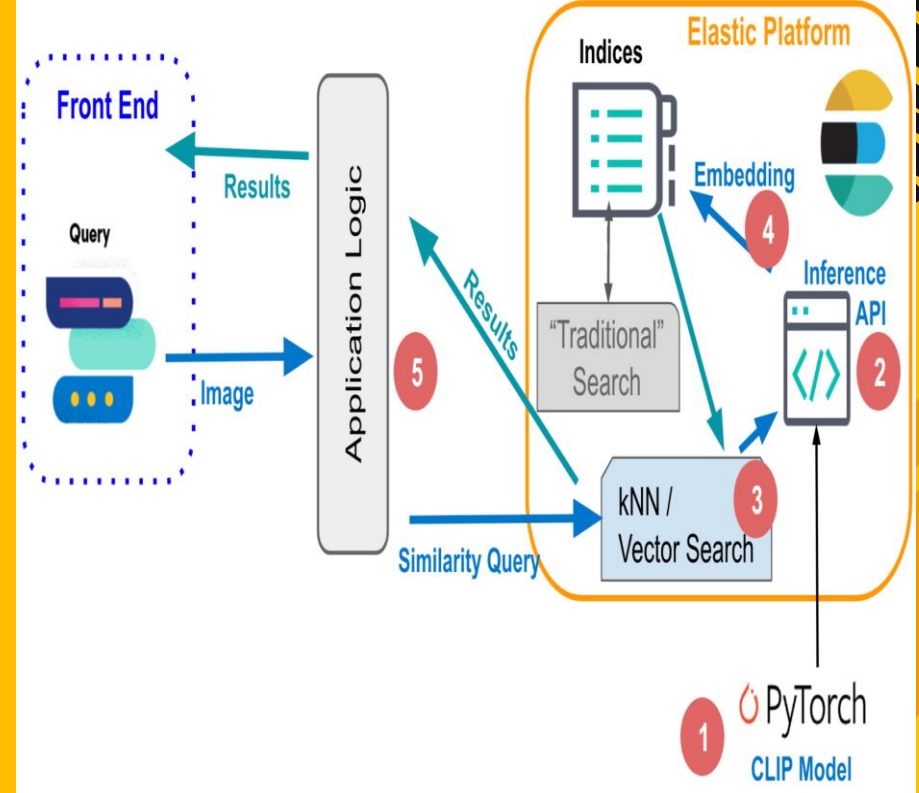
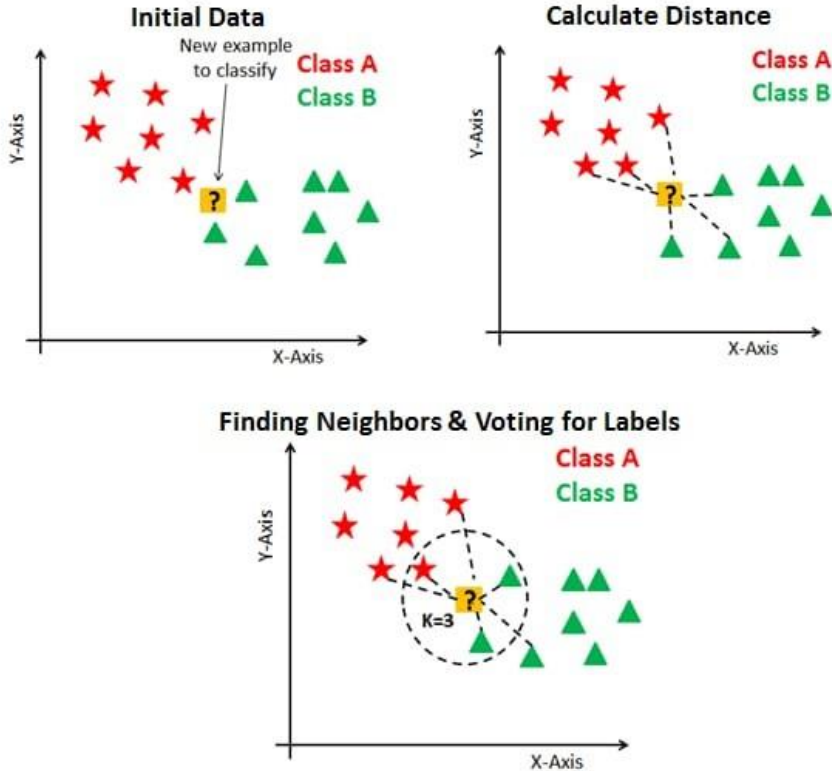


KNN Algorithm



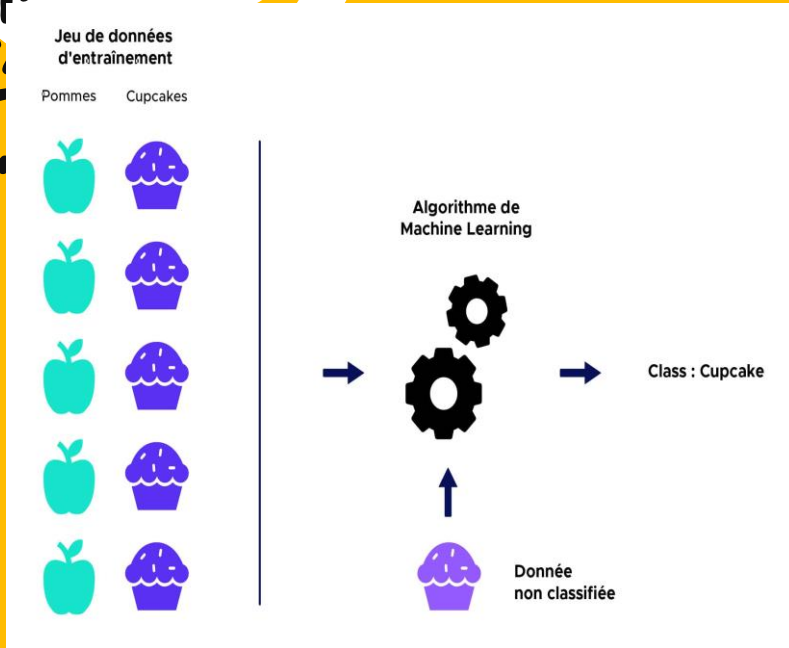


KNN Algorithm Steps





KNN Application

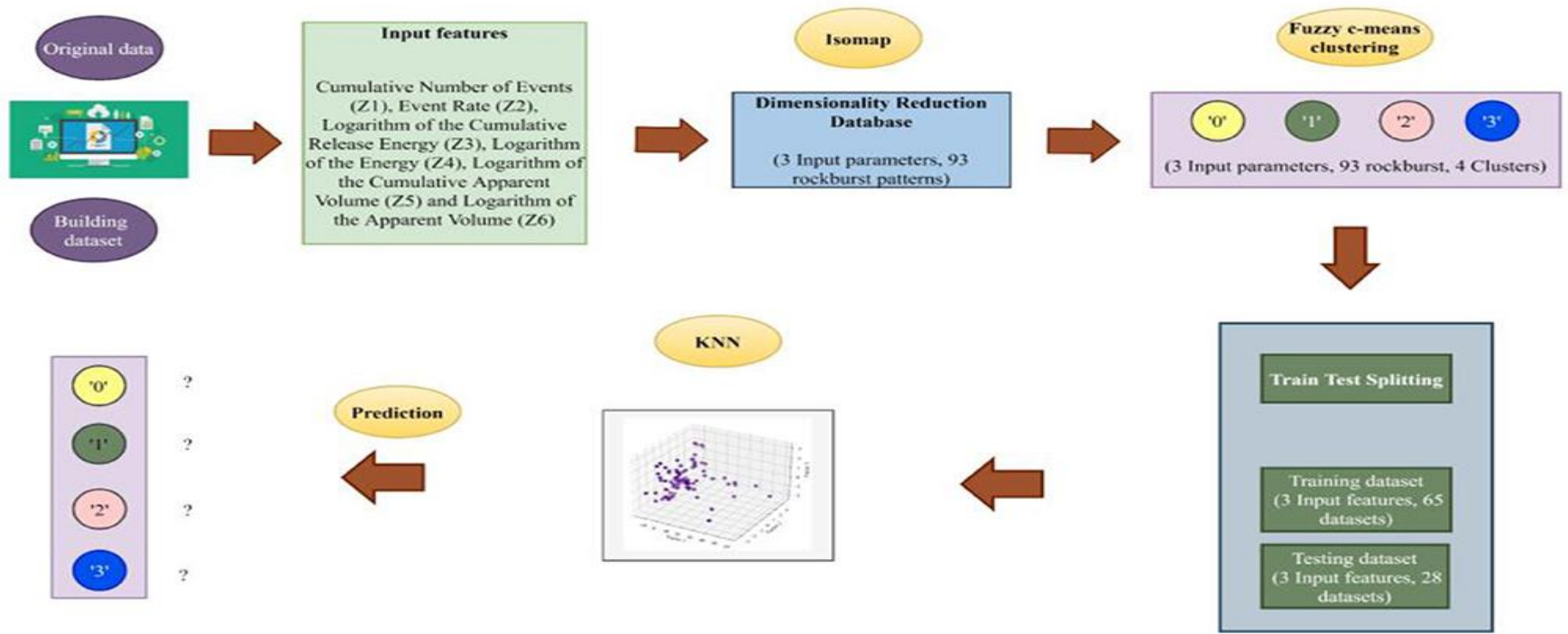


KNN Classifier

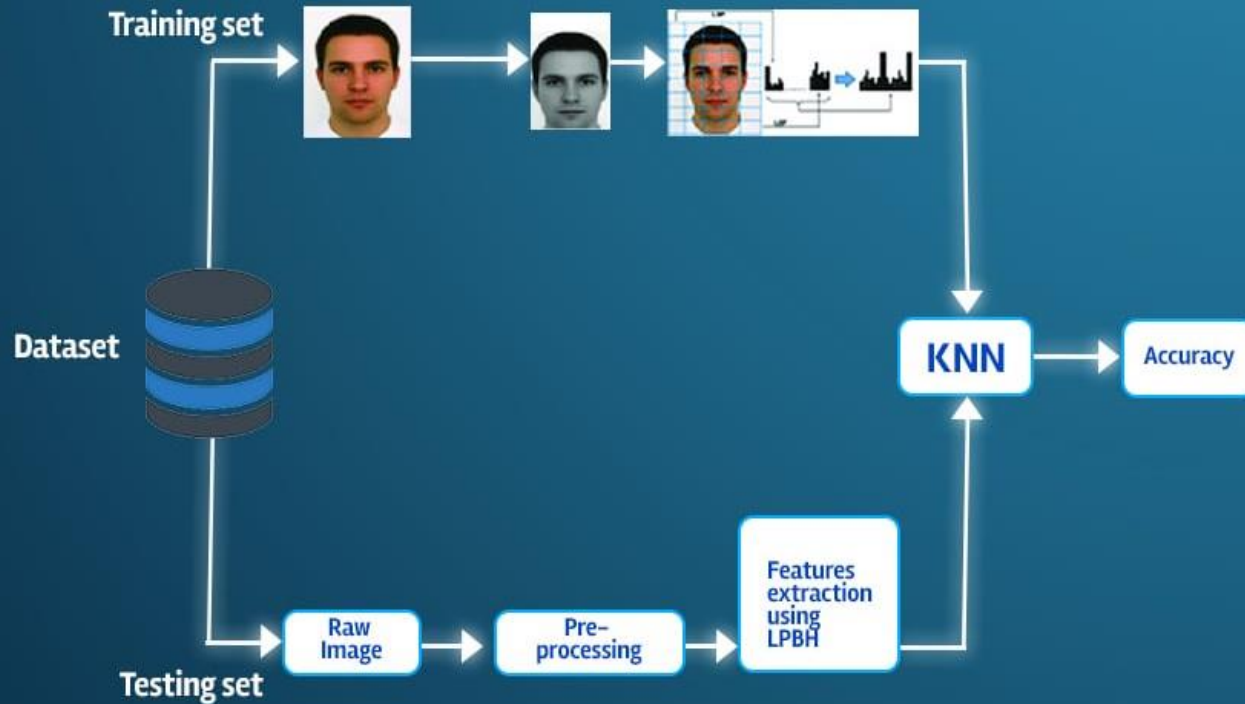




KNN Algorithm in ML



KNN in Machine Learning





Knowledge Check

A company is using a K-Nearest Neighbors (KNN) algorithm to segment its customers based on purchasing behavior. They need to decide on the value of k to use for their model. Which of the following statements is true regarding the choice of k in KNN?

- X A) A larger k value makes the algorithm more sensitive to noise in the data.
- X B) A smaller k value increases the likelihood of overfitting the model to the training data.
- X C) KNN does not require feature scaling for accurate predictions.
- X D) The value of k has no impact on the performance of the KNN algorithm.
- X **Answer: B) A smaller k value increases the likelihood of overfitting the model to the training data.**



Summary

- Reason to study KNN
- KNN Algorithm
- KNN Algorithm Steps
- KNN Application
- KNN in ML





References

➤ <https://medium.com/@ben.g.ballard/knn-use-cases-for-small-businesses-b12d28e9a842#:~:text=For%20example%2C%20you%20could%20use,or%20promotion%20for%20that%20product.>



REACH US



snsinstitutions



snsinstitutions



snsinstitutions



snsinstitutions



snsinstitutions

Thanks!

