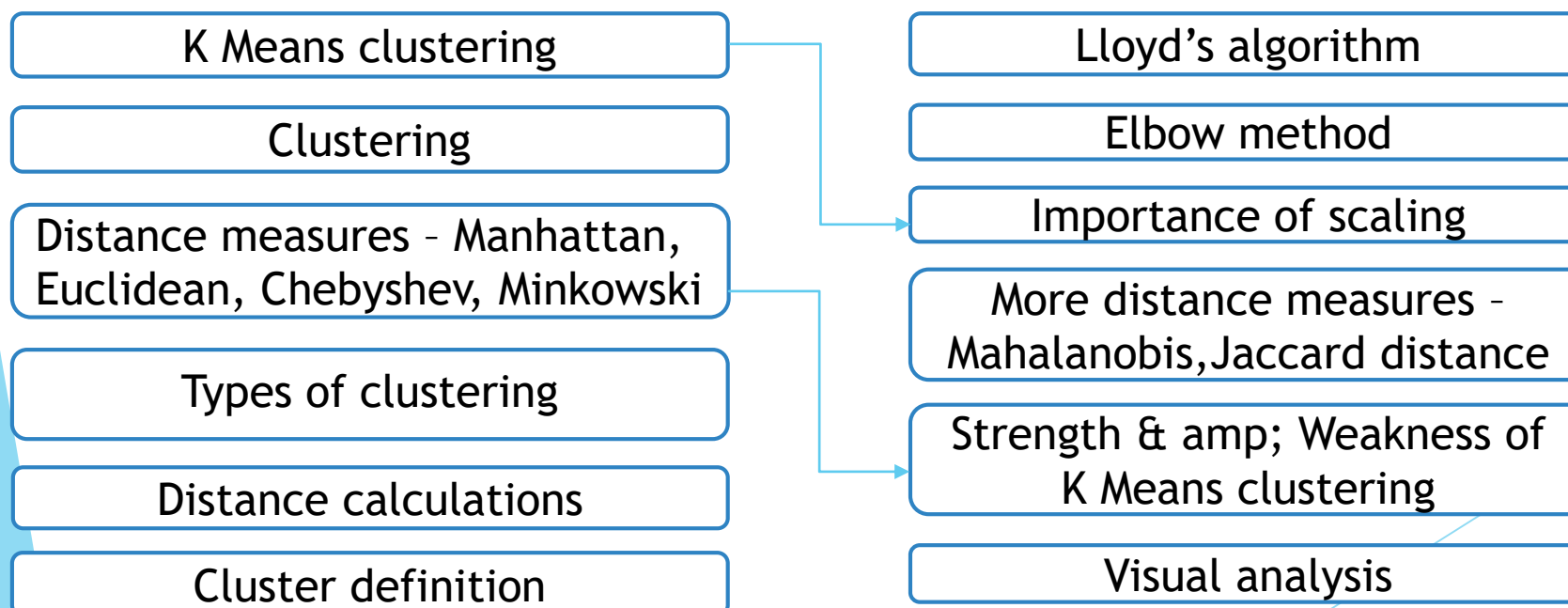


Week 1: K means Clustering

(Total video duration is nearly 1 hour 46 mins. You will be required to spend 60 - 75 minutes/day along with practicing datasets and quizzes)

“Unsupervised Learning uses similarities of data points to categories with minimalistic labelling. In this course, we will learn the most commonly used Unsupervised learning methodologies, Clustering and Dimensionality Reduction.”.

Learning Outcomes from Week-1:



Mentor Session Duration:
2 hours

Faculty Name:
Dr. Kumar Muthuraman

No. of videos:
11

S.no	Video Name	Duration of the video(min)	Conceptual or Hands On
1.1	Machine learning 101 - Refresher	6.25	Conceptual
1.2	Introduction to Clustering	16.56	Conceptual
1.3	Types of Clustering	13.13	Conceptual
1.4	K Means Clustering	13.47	Conceptual
1.5	K Means Clustering Hands-on	12.02	Conceptual + Hands on
1.6	Importance of Scaling	17.08	Conceptual

Mentor Session Duration:
2 hours

Faculty Name:
Dr. Kumar Muthuraman

No. of videos:
11

S.no	Video Name	Duration of the video(min)	Conceptual or Hands On
1.7	Applications of Clustering	4.05	Conceptual
1.8	Advantages & Disadvantages of K- means Clustering	4.31	Conceptual
1.9	Silhouette coefficient for K means	8.01	Conceptual
1.10	Visual Analysis of clustering	5.20	Conceptual
1.11	Dynamic Clustering	4.09	Conceptual

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Few textbooks that you can refer to:

<https://jakevdp.github.io/PythonDataScienceHandbook/>

Python Machine Learning by Sebastian Raschka and Vahid Mirjalili

The Elements of Statistical Learning

Approaching Any Machine Learning problem by Abhishek Thakur

Hands-on Unsupervised Learning using Python by Ankur Patel