Big Data and Data Mining

1. Velocity - Velocity is the speed at which data accumulates. Data is being generated extremely fast, in a process that never stops. Near or real-time streaming, local, and cloud-based technologies can process information very quickly
2. Volume - the scale of the data
3. Variety - the diversity of the data. (structured / unstruct) data comes from different sources, machines, people, and processes, both internal and external to organizations.
4. Veracity - the quality and origin of data, and its conformity to facts and accuracy. Attributes include consistency, completeness, integrity, and ambiguity.
5. Value - ability and need to turn data into value. Value isn't just profit. It may have medical or social benefits, as well as customer, employee, or personal satisfaction.

# Project Flow

1. Establish Data Mining Goal
2. Selecting Data
3. Preprocessing Data
4. Transforming Data
5. Storing Data
6. Mining Data
7. Evaluting mining result

# Lesson Summary

In this lesson, you have learned:

* How Big Data is defined by the Vs: Velocity, Volume, Variety, Veracity, and Value.
* How Hadoop and other tools, combined with distributed computing power,  are used to handle the demands of Big Data.
* What skills are required to analyse Big Data.
* About the process of Data Mining, and how it produces results.

# Deep learning and Machine Learning

# Differences

# Deep learning -speech regonition, image classification

# Machine learning – recommendation, fraud detetion

 findings confirmed what we already knew from our everyday experience. However, the real value added by the research rested in quantifying the magnitude of those relationships.

# Lesson Summary

In this lesson, you have learned:

* The differences between some common Data Science terms, including Deep Learning and Machine Learning.
* Deep Learning is a type of Machine Learning that simulates human decision-making using neural networks.
* Machine Learning has many applications, from recommender systems that provide relevant choices for customers on commercial websites, to detailed analysis of financial markets.
* How to use regression to analyze data.