Introduction to Big Data

ECAP456

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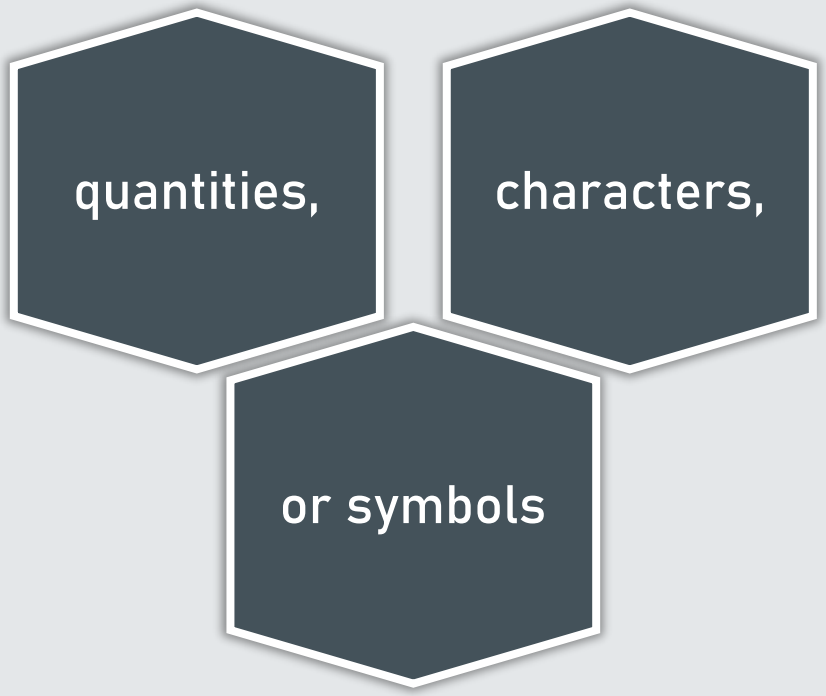
Learning Outcomes

After this lecture, you will be able to

- understand what is BIG DATA,
- know the characteristics of BIG DATA,
- explore benefits of BIG DATA,
- understand importance of BIG DATA.

What is BIG DATA?

What is DATA?



What is DATA?

quantities,

characters,

or symbols

What is DATA?

Electronically data stored in computer

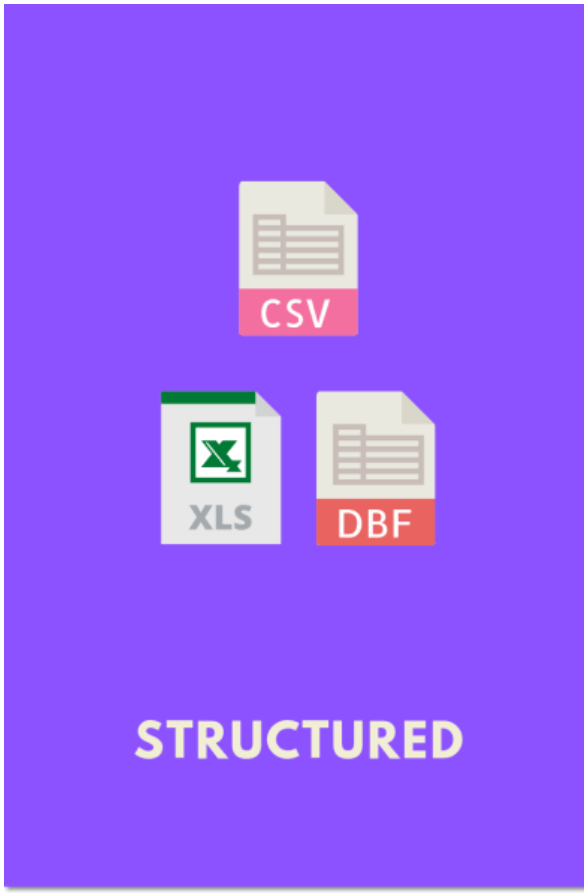
What is DATA?

Recorded on magnetic, optical or mechanical recording media

What is BIG DATA

Large volume of data

What is BIG DATA



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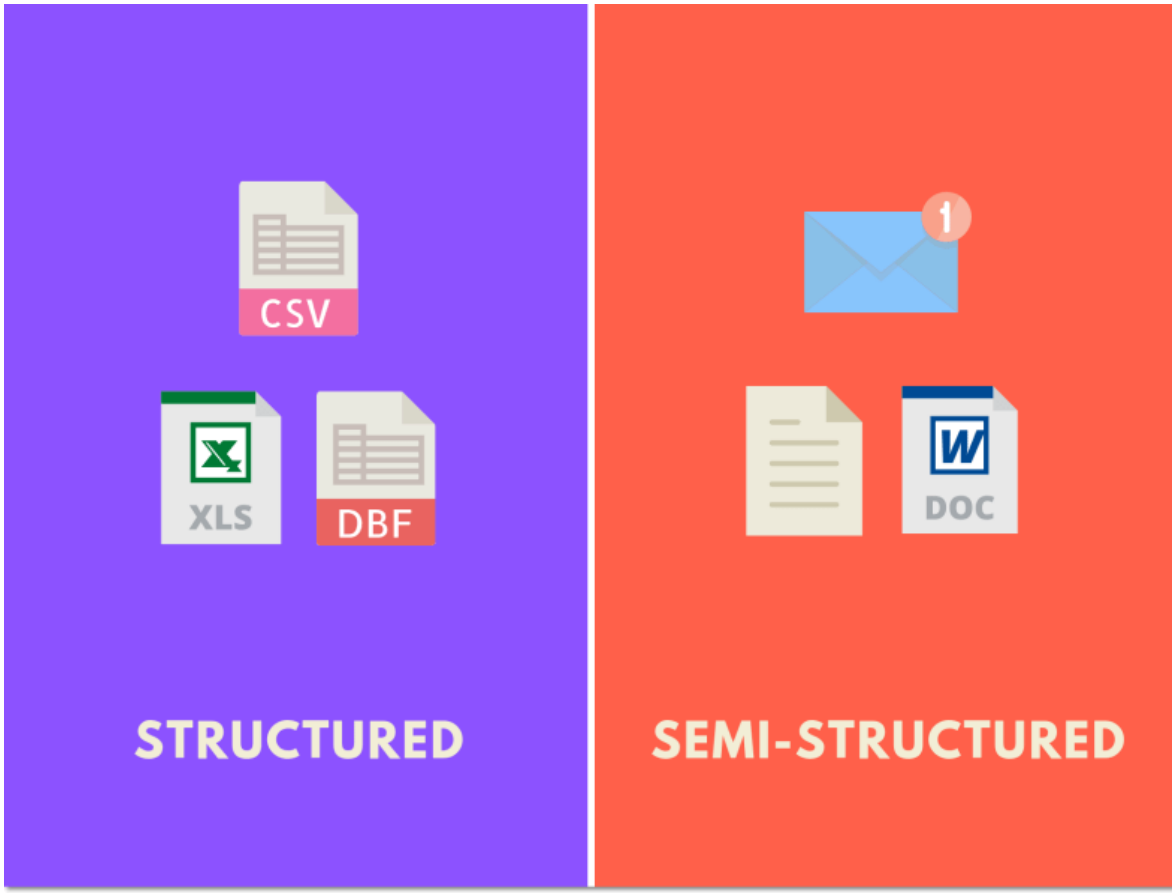


What is BIG DATA

What is BIG DATA

inundates a business on a day-to-day basis

- It’s not the amount of data that’s important.
- It’s what organizations do with the data that matters.
- Big data can be analyzed for insights that lead to better decisions and strategic business moves.

What is BIG DATA

- Big data is a combination of structured, semi-structured and unstructured data collected by organizations that can be mined for information and used in machine learning projects, predictive modeling and other advanced analytics applications.

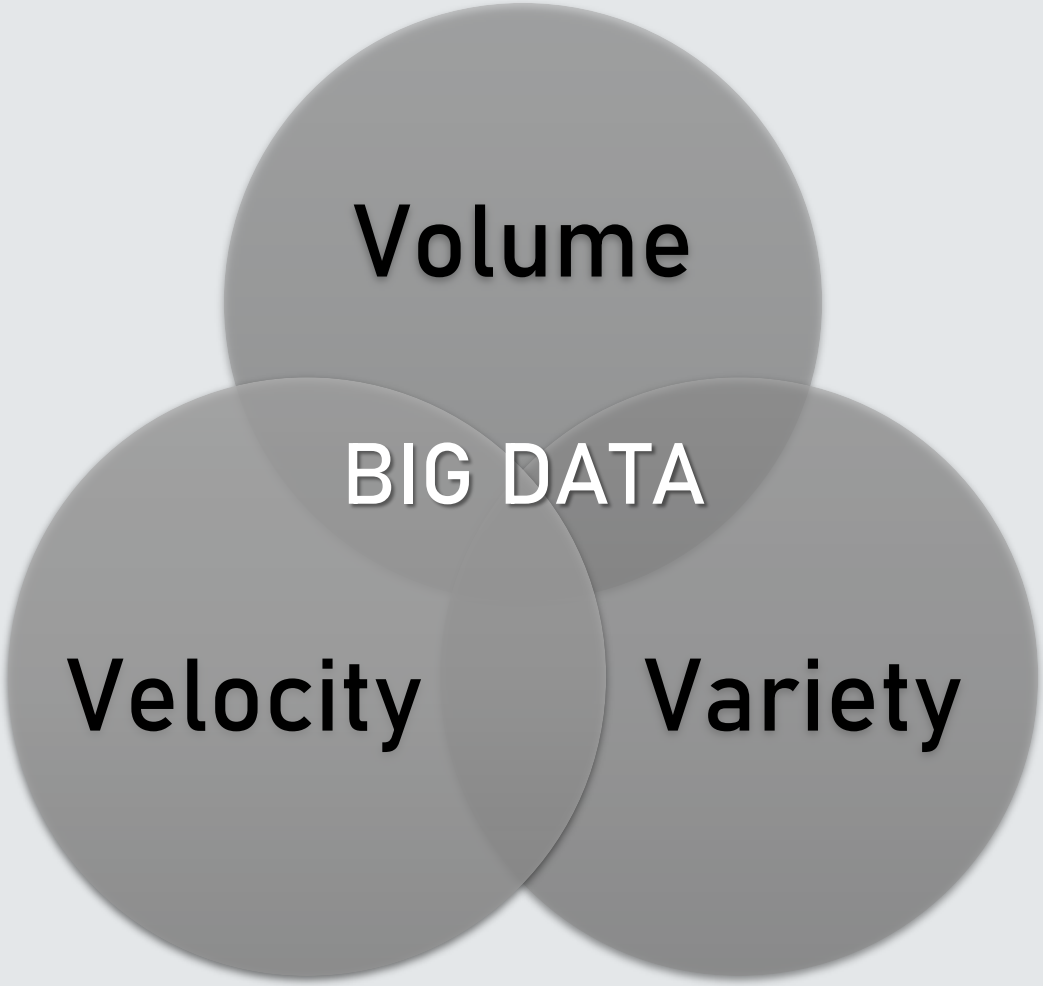
Social media site **Facebook**

Single Jet Engine

New York Stock Exchange

Examples of BIG DATA

Characteristics of BIG DATA



Volume

- Amount of data generated
- Online and offline transactions
- In kilobytes or terabytes
- Saved in records, tables, files

Velocity

- Speed of generating data.
- Generated in real-time.
- Online and offline data.
- In streams, batch or bits

variety

- Structured and unstructured
- Online images & videos
- Human generated – texts
- Machine generated – readings

Benefits of Big Data Processing

- Businesses can utilize outside intelligence while taking decisions
- Improved customer service
- Early identification of risk to the product/services, if any
- Better operational efficiency

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Why is Big Data Important ?

- Cost Savings
- Time Reductions
- Understand the market conditions
- Social media listenings
- Using Big Data Analytics to Boost Customer Acquisition and Retention
- Using Big Data Analytics to Solve Advertisers Problem and Offer Marketing Insights
- Big Data Analytics As a Driver of Innovations and Product Development

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That's all for now...