BYTE QUEST

Vasavi College Of Engineering

Department Of Computer Science and Engineering

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Contents:

Byte Quest is the article published by the CSE dept of Vasavi College of Engineering regarding the latest innovative Technologies and Software that have been emerged in the competitive world. The motto of this article is to update the people regarding the improvement in technology. The article is designed by the active participation of students under the guidance of faculty coordinators.

- Good ,bad or indifferent if you are not investing in new technology , you are going to be left behind.

  -Philip Green

- Once a new technology rolls over you, if you're not part of the steamroller, you're part of the road.

  -Stewart Brand.

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BIG DATA

Big Data refers to extremely large data sets of varying types of data – structured, unstructured, and semi-structured – that can be collected, stored, and later analyzed to provide insights for organizations.

Big Data's promise depends on how the data is managed. In the past data was organized in relational models, sometimes within Data Warehouses, and controlled through various ETL (Extract, Transform and Load) processes. This strategy does not work well with Big Data, the size and complexity of the datasets have caused enterprises to adopt new processes and different approaches.

Current usage of the term "big data" tends to refer to the use of predictive analytics , user behavior analytics, or certain other advanced data analytics methods that extract value from data, and seldom to a particular size of data set.

ANUKRITI(CSE-B 2/4)

INTERNET OF THINGS

The **Internet of things** (**IoT**) is the network of physical devices, vehicles, home appliances, and other items embedded with electronics, software, sensors , actuators, and connectivity which enables these things to connect, collect and exchange data.

APPLICATIONS

Smart Home:

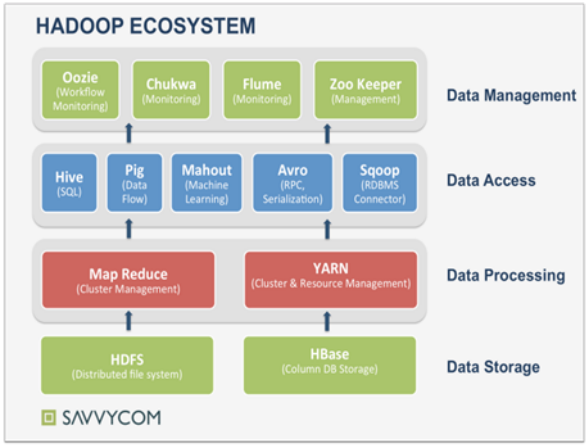
For consumers, the smart home is probably where they are likely to come into contact with internet-enabled things, and it's one area where the big tech companies (in particular Amazon, Google, and Apple) are competing hard.

Governance:

To address the challenges inherent in planning and implementing complex IoT solutions, teams need a governance model.

SRIKAR(CSE-B 2/4)

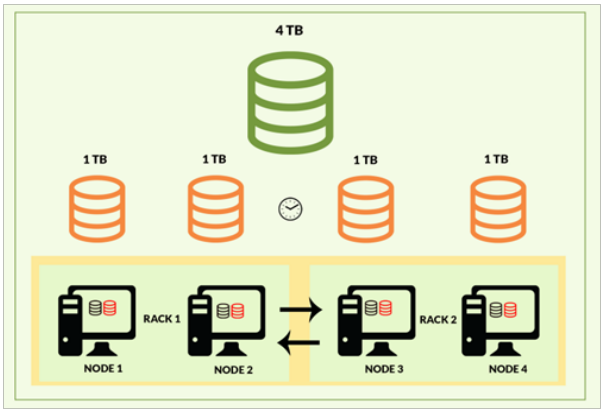
HADOOP TECHNOLOGY



Today we live in the age of Big data, where data volumes have outgrown the storage & processing capabilities of a single machine, and the different types of data formats required to be analyzed has increased tremendously.

This brings 2 fundamental challenges:

- How to store and work with huge volumes & variety of data
- How to analyze these vast data points & use it for competitive advantage. Hadoop fills this gap by overcoming both challenges. Hadoop is based on research papers from Google & it was created by Doug Cutting, who named the framework after his son's yellow stuffed toy elephant.



Hadoop is an open source distributed processing framework that manages data processing and storage for big data applications running in clustered systems. It is at the center of a growing ecosystem of big data technologies that are primarily used to support advanced analytics initiatives, including predictive analytics, data mining and machine learningapplications. Hadoop can handle various forms of structured and unstructured data, giving users more flexibility for collecting, processing and analyzing data than relational databases and data warehouses provide.

Hadoop applications and use cases

Hadoop is primarily geared to analytics uses, and its ability to process and store different types of data makes it a particularly good fit for big data analytics applications.

A common use case for Hadoop-based big data systems is customer analytics. Examples include efforts to predict customer churn, analyze clickstream data to better target online ads to web users and track customer sentiment based on comments about a company on social networks.

ATISHYA(CSE-B 2\4)