

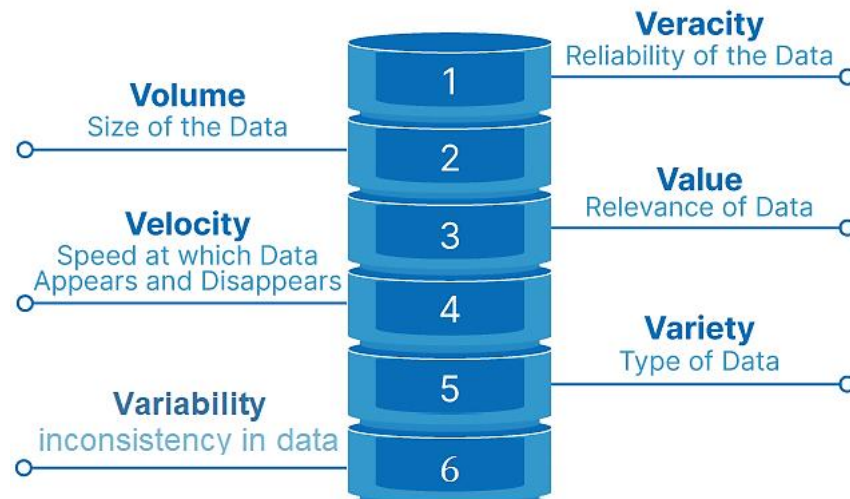
PRACTICAL-1

Perform the following tasks.

Task-1:

Big Data: Big data is a set of huge and exponentially growing data, unable to be managed, stored, and processed by traditional data management tools. Big data is one of the most important emerging technologies in today's business environment. It helps companies analyze data for insights that lead to better decisions and strategic business moves.

Features of Big Data: Big Data is often characterized by the following six Vs:

**Case Study:**

A newly-introduced variant of cricket from the general one-day matches, T20 cricket or Twenty20 cricket may be defined as a short cricket match limited to 20 overs of gameplay, lasting for about 80 minutes per innings, with half-an-hour interval in between. The beginnings of the T20 format can be traced to 2003 when it was introduced by the England and Wales Cricket Board. The format has met with mixed reactions from cricket experts and fans. The T20 format of cricket has made its way into almost all cricketing nations across the globe and enjoys much popularity, especially in the Indian sub-continent, South Africa, and Australia. What sets this format of cricket apart is the fact that it has become a franchised form of sports, like some British football clubs, where individuals of high net-worth may own cricket teams, which may then play against each other in the form of tournaments. This has been particularly popular in India where several teams have been formed, and a high-octane T20 series is played out each year amidst much fanfare. One of the most distinguishing features of the T20 format exercised in India is that the various franchises are free to rope in players from cricket teams of other countries. For instance, the teams have been known to have brought in players like Michael Clarke from Australia and Chris Gayle from West Indies on various occasions, besides several others. This has not only resulted in greater cross-country participation in cricket but has also become a launchpad for various new cricketers who make their career debuts through this format.

Answer the following questions.

- How is big data used in cricket?
- Explain 4Vs (Volume, Velocity, Variability, and Variety) characteristics in this company's data.

Task-2:

Study the Drivers of Big Data and summarize your understanding.

Task-3:

Study the Data Formats given below and summarize your understanding.

- 1) CSV
- 2) JSON
- 3) Parquet
- 4) Avro
- 5) Key-Value Pairs

Task-4

Explore the impact of BIG DATA in the following listed field and summarize your study, according to the questions given below:

- 1) Big Data in Healthcare.
- 2) Big Data in Railway System.
- 3) Big Data in Agriculture

Answer the following questions

- 1) How data inputs help in Big Data do based Customer value analytics?
- 2) How does Big Data help in Railway Reservation System?
- 3) Why does Big Data offer the potential to transform the medicine and healthcare system?
- 4) Describe ways of usages of Big Data analytics in Agriculture.

References:

- 1) <https://www.mckinsey.com/industries/pharmaceuticals-and-medical-products/our-insights/the-role-of-big-data-in-medicine>
- 2) <https://www.globalrailwayreview.com/article/61515/big-data-railway-operations-maintenance-2/>
- 3) <https://www.ksolves.com/blog/big-data/how-big-data-is-transforming-the-agriculture-industry>