



BADRI

**HARNESSING
THE POWER OF**

DATA

DATA



WHAT IS DATA

“Data is the next oil” elaborates the significance of data

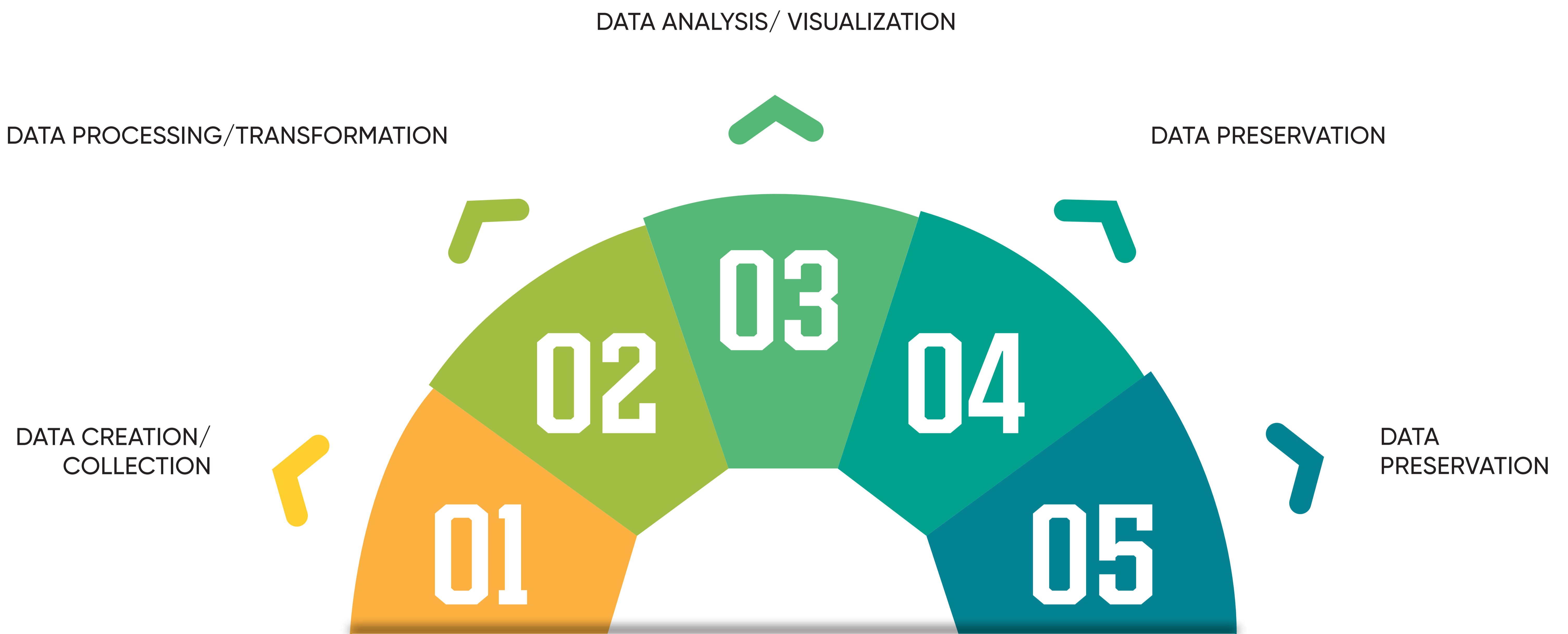
Data is the plural of datum and are building blocks of decision making. Data on its own is ‘Meaningless’ but being evaluated, examined, interpreted, and analysed in a way to be used for decision making. Data is being generated every second and need to be stored and analysed to make decisions. It could be in the form of numbers, word, pictures, map, emails and so on. There are three types of Data.

- ▶ **Unstructured:** Cannot be organized in a database.
- ▶ **Structured:** Stored in rows and columns and easy to manage
- ▶ **Semi Structured:** Combination of structured and unstructured



DATA LIFE CYCLE

Data Life Cycle is a process that every organization implement to manage, preserve, and analyse.



1. Data Creation/ Collection:

Data can be stored and later accessed by:

- ▶ **Data Sources:** Accessing database directly.
- ▶ **Data Lake:** Single store of data from multiple data sources.
- ▶ **Data Warehousing:** Build data model for analytical processing (single and clean version of truth)
- ▶ **Data Mart:** It's a subset of Data warehouse.

2. Data Processing/Transformation:

Changing the data from one form to another:

- ▶ **Data Discovery:** Data profiling is used, to understand characteristics and structure of data.
- ▶ **Data Mapping:** Matching field from one data source to another.
- ▶ **Code Generation:** Writing code for transformation
- ▶ **Code Execution:** Executing of code to get result
- ▶ **Verification:** Desired transformation is done with no errors.



3. Data Analytics and Visualization:

Changing the data into valuable insights and making the sense out of it, Looking for trend, grouping, outliers and so on...

Two types of Data Analysis

- ▶ **Qualitative Data Analysis:** Data that cannot be quantify. Characteristics, attribute, and descriptions about data. Question could be how and why? Qualitative data gives you feel and insight.
- ▶ **Quantitative Data Analysis:** Data that can be measured or counted. Question could be how much, how many?

4. Data Preservation:

Data Preservation is about ensuring access to our data over time in a consistent, reliable form.

5. Data Access:

Access or retrieval of data from repository.

WHY DATA IS IMPORTANT:

“Half knowledge is worse than ignorance”

Knowing “Facts and Figures” are not enough to make any decision but is crucial to make sense out of data such as Why, Where, When, What, Who & How. Key advantages not limited to:

- ▶ Data help you to optimize performance
- ▶ Data help you to identify the pain areas or issues that happened in the past or expected in the future by looking trends.
- ▶ Data help you to find outliers
- ▶ Data help you to take informed decision despite rely on intuition.
- ▶ Data help you to improve operations and ongoing tasks.
- ▶ Data help you to judge customer behaviour and be customer centric.
- ▶ Data help you to remain focus on your strength.
- ▶ Data helps you to be up to date about organization.



“You can’t manage what you don’t measure.” (Peter Drucker)

Companies are becoming more aware of the need to analyse vast amounts of data from many sources, in a variety of formats and types. Where Big Data technology is being used.

WHAT IS BIG DATA

‘Big Data’ is the amount of data that cannot fit into standard database system because of volume. It consists of Structured, Unstructured, and semi structured datasets.

4Vs describes the characteristics of Big Data

- ▶ **Volume:** Size of Data
- ▶ **Velocity:** Rate of growth
- ▶ **Variety:** Different types of data
- ▶ **Veracity:** Availability and Accountability.

DATA DRIVEN CULTURE/ENVIRONMENT:

Since we were discussing about data, technology, and advantages one of the essential thing a company need to adopt along with tools and technology is Data driven culture/environment. Data driven culture is not only investing in data but leveraging insights for all decision and empower employee to make the most of data. Fostering a data driven culture is extremely important to organization. In constantly changing world, everybody needs to be updated about the changes going on within organization to make data driven decisions.

Data driven decision are key factor for improving performance, remain customer centric, focus on ROI, market competitive and so on...

IMPORTANT THINGS FOR A DATA DRIVEN ORGANIZATION:

01 DATA ACCESSIBILITY ACROSS ORGANIZATION

DATA LITERACY AND KNOWLEDGE **02**

03 DATA GOVERNANCE

DATA QUALITY AND INTEGRITY **04**

Data centric culture is not a one-time job it's an ongoing process. A successful implementation of a BI Tool along with strong knowledge of data and processes could fasten.

WHAT IS DATA MATURITY LEVEL AND WHERE DO YOU STAND?

Data maturity is a metric that reflects how well a company utilizes its data.

STAGES OF DATA MATURITY ASSESSMENT:

- ▶ **Data Aware:** Unstandardized reports out of data. Manual reports and Reports.
- ▶ **Data Proficient:** Automated Data processing and clear understanding of data.
- ▶ **Data Savvy:** Well aware of the data that can be used for decision making
- ▶ **Data Driven:** Each and every decision is based on data.

Where do you stand in data maturity and what steps need to be taken for being a Data driven organization?

CONTACT US!



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