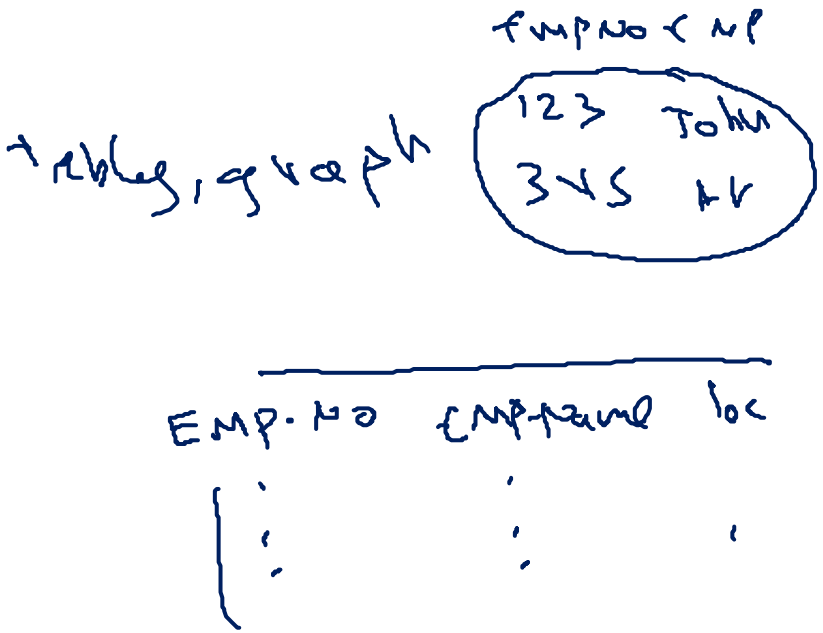
Relationship between data categories

Data categories(Types of data in an organization)

- **Data categories are groupings of data with common characteristics or features. They are useful for managing the data because certain data may be treated differently based on their classification.**

- **Reporting data (e.g. aggregated sales data)**
- **Transactional data (e.g. order information)**
- **Master data (e.g. customer information)**
- **Reference data (e.g. order status)**
- **Metadata (e.g. created timestamps)**



Data categories

- **Transactional data** relates to the transactions of the organization and includes data that is captured. It is the largest volume of data in the enterprise. The information that documents an exchange, agreement or transfer between organizations or individuals. information directly derived as a result of transactions.

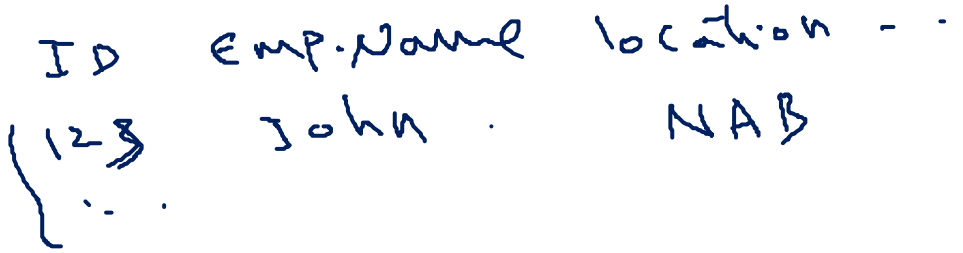
Example of business events include:

- Purchase by customers,
- A bill for product of services,
- Credits: funds added to an account.
- Interest, payroll, contracts

customer employ pvic
AAA BBB
10 Rs

- **Transactional Data is typically handled in operational applications - CRM, ERP, SCM, HR, etc..**

Data categories



- **Master Data**:

- **Master Data is key business information that supports the transactions. information model of business concepts, or entities, and how they relate to each other. identifiers that provides context about business data such as location, customer, product, asset.**
- Master data are key data that are shared by all Service Manager applications, and **are stored as records in support tables.** Master data is the type of data without which any transaction cannot be implemented and therefore it is mandatory for every organization.
- set of identifiers that provides context about business data.
- **It is commonly referred to as Places (locations, geography, sites, etc.), Parties (persons, customers, suppliers, employees, etc.) and Things (products, items, material, vehicles, etc.).**
- **Data which are agreed on and shared across the enterprise .**
- Product Data, Employee data, Transactions data, Tickets, Analytical Data.
- all personal attributes can be stored in various SAP standard info types as records with specific validity

Transactional data vs Master data

Master Data Versus Transactional Data

Master Data

People

Things

Place

Transaction Data

Represents the event which the master data participates – Purchasing of the Cheese

- Price
- Discount or coupon
- Method of payment

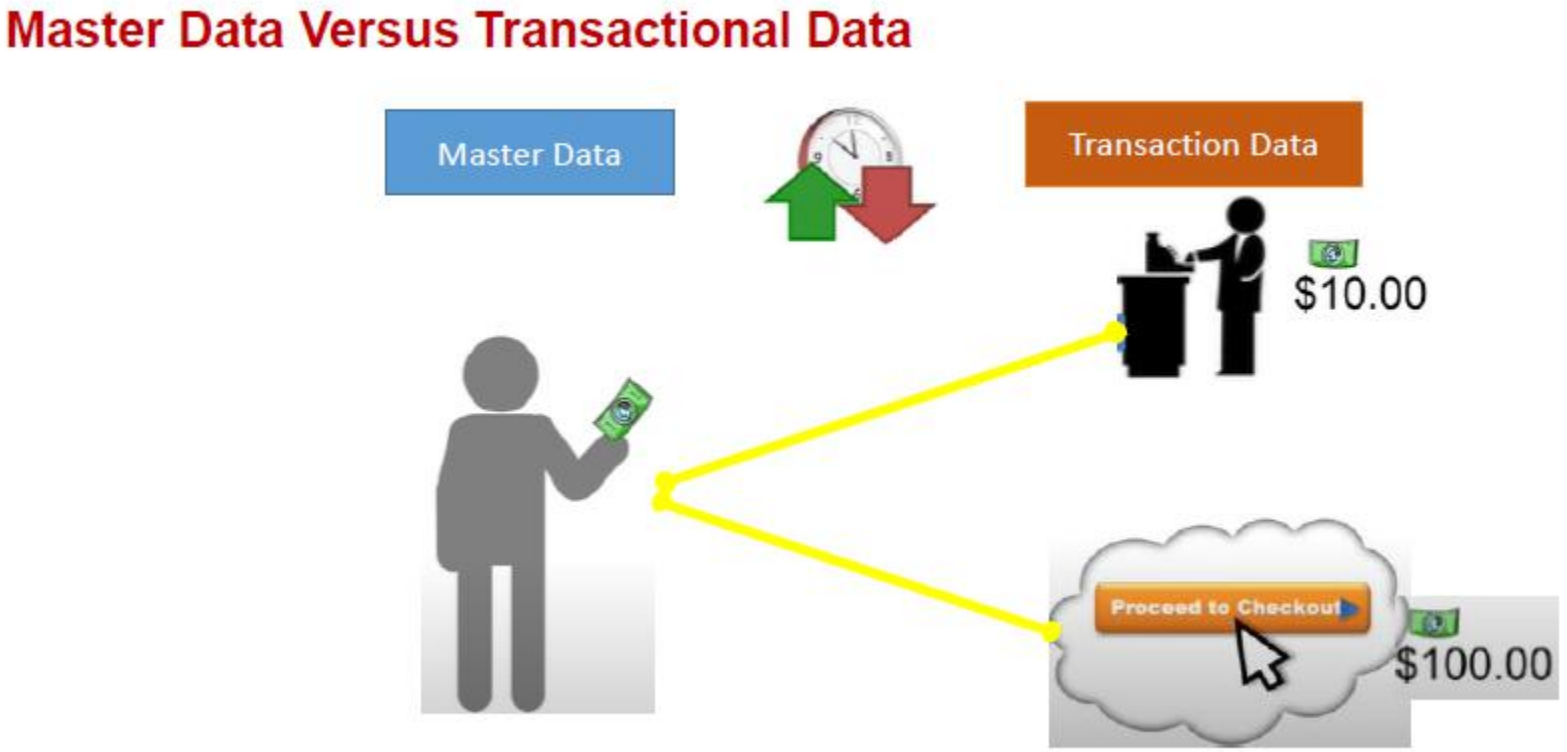
Master Data

Master data to nouns

Transaction data to verbs

Transaction Data

Transactional data vs Master data



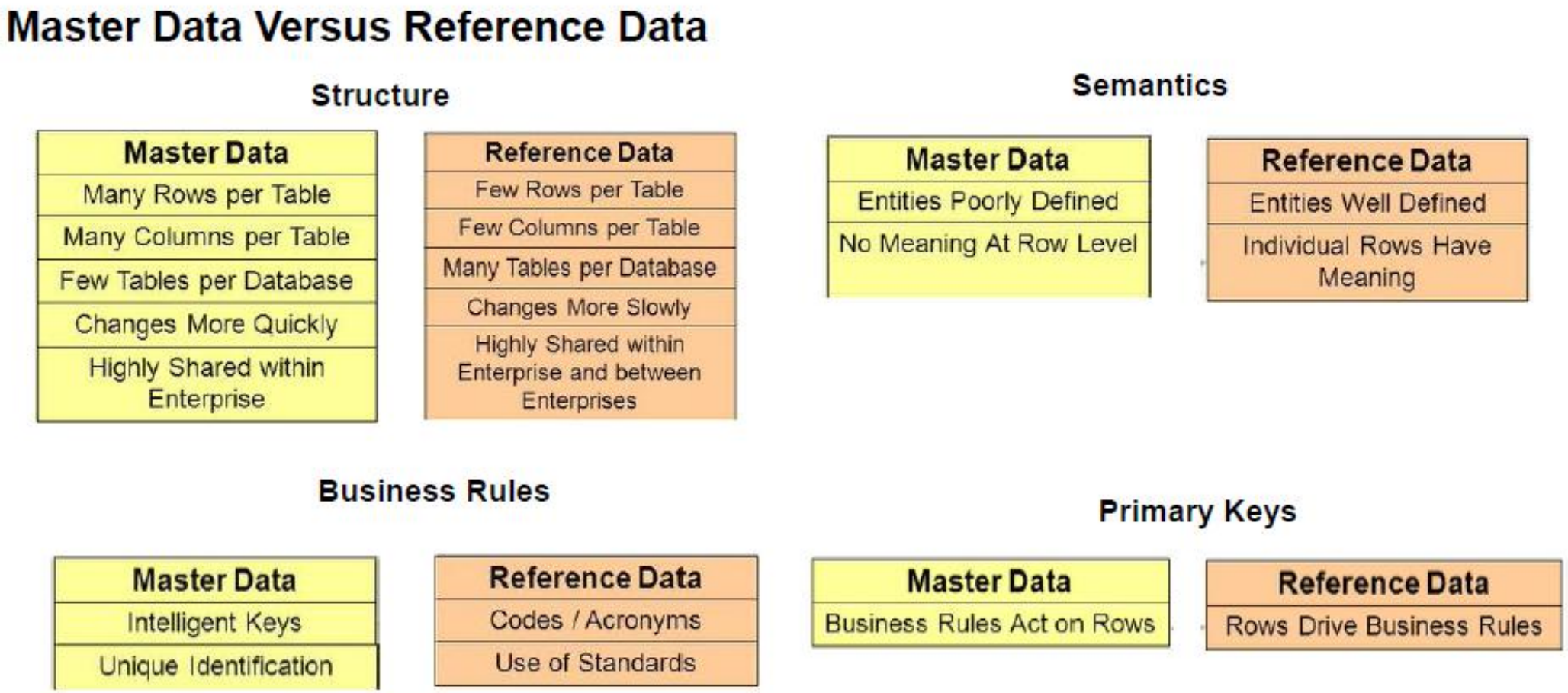
Transactional data vs Master data

Master Data	Transactional Data
Represents the business objects that contain the most valuable, agreed upon information shared across an organization	Data that is periodically updated asynchronously over time as new information becomes available
Represents people, places or things that are related to an organization	Used by master data
Ex. Customer details, product details, employee details Does not change – not volatile	Ex. Price, discount, method of payment Change frequently - volatile
Can have issues related to consistency	Can have issues related to logic and quantity

Reference Data (Master Reference data)

- **Subset of master data that refers to the data that defines the permissible values to be used by other data fields. It is data that is referenced and shared by a number of systems. Reference data** is the information used to define other data.
- Example: country codes, currency, organization unit types.
- Financial product information, Entity information, pricing information.
- Two types: static data: won't change throughout the course of the transaction, and includes specifications such as the names.
- Dynamic data – information that changes throughout the course of the transaction, such as credit ratings or the pricing of the instrument

Reference data vs Master data



Reporting data → Improve

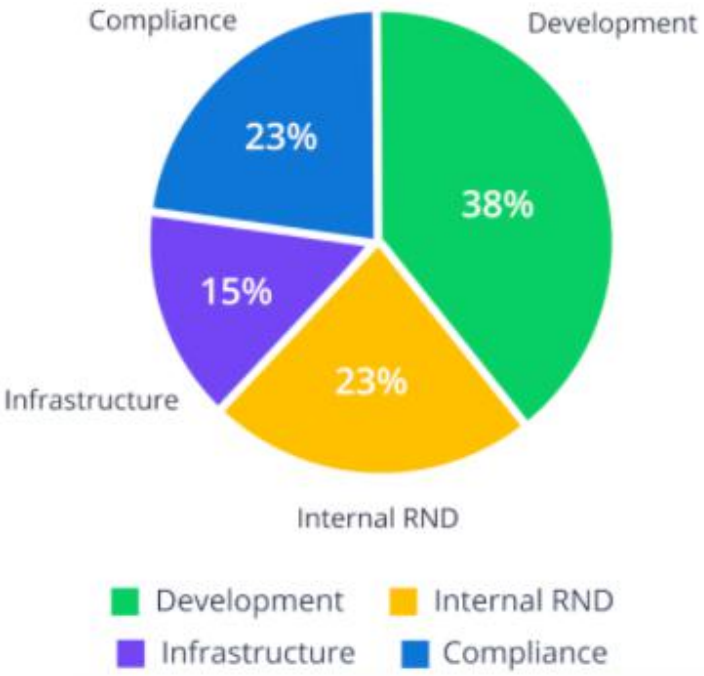
- **Reporting data is data organized for the purpose of reporting and business intelligence. Data for operational reporting as well as data for enterprise (highly aggregated) reporting belong in this category.**
- **Reporting data is created from the transactional data, master data and master reference data.**
- **Helps to track the business and evaluate its performance.**
- process of collecting, merging, and visualizing raw data from all available sources.
- **Form of tables, graphs or charts**

price tv
John :
Anna :

Reporting data

Active Project Requests	New Project Requests	Total projects
27	13	42

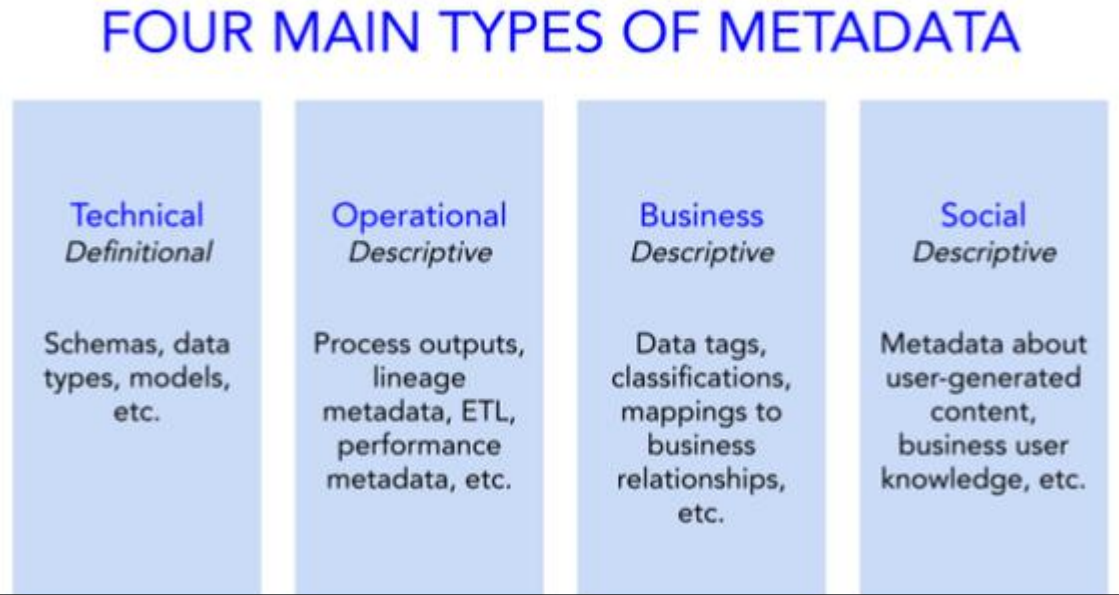
Requests by Project type



Requested Budget by Month

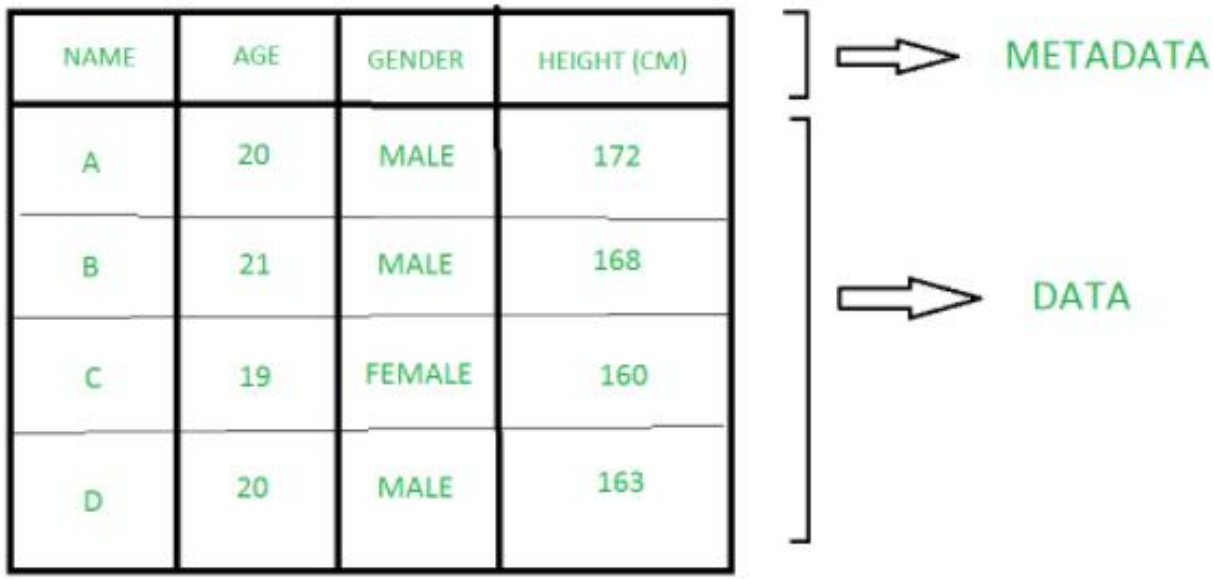
Metadata

- Data that describes other data.
- **Examples: properties file, size, type, resolution, author, and create date. Software applications, documents, spreadsheets, and web pages are all examples that typically have associated metadata. Master data and reference data have related metadata.**



Importance of metadata

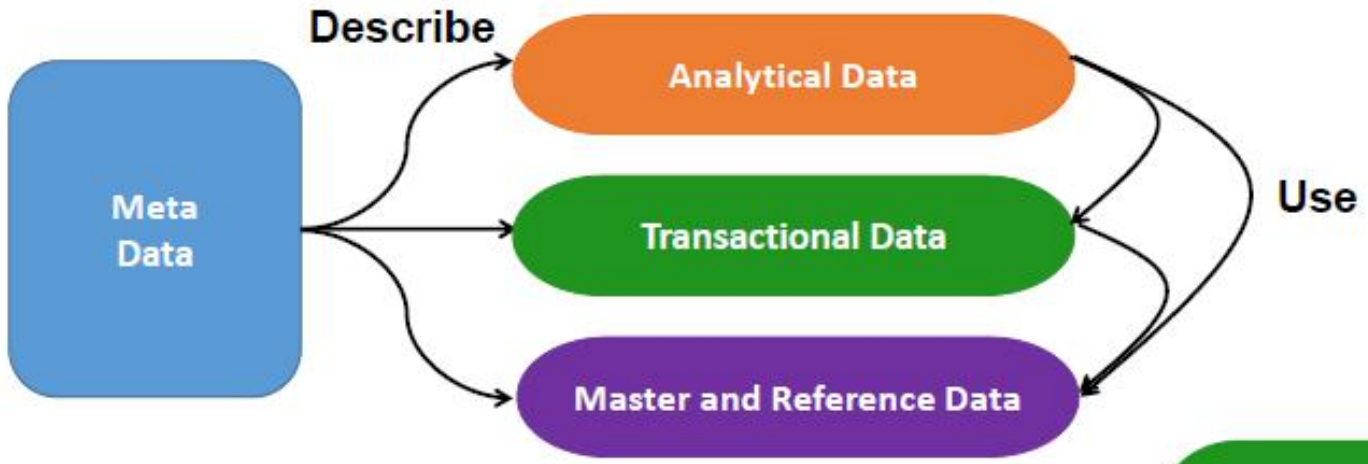
- enterprises are increasingly investing in and betting on data to make better decisions, the amount of data we use is only set to increase.
- In order, to increase the shelf life of data, it's important for companies to invest in managing their metadata as well.

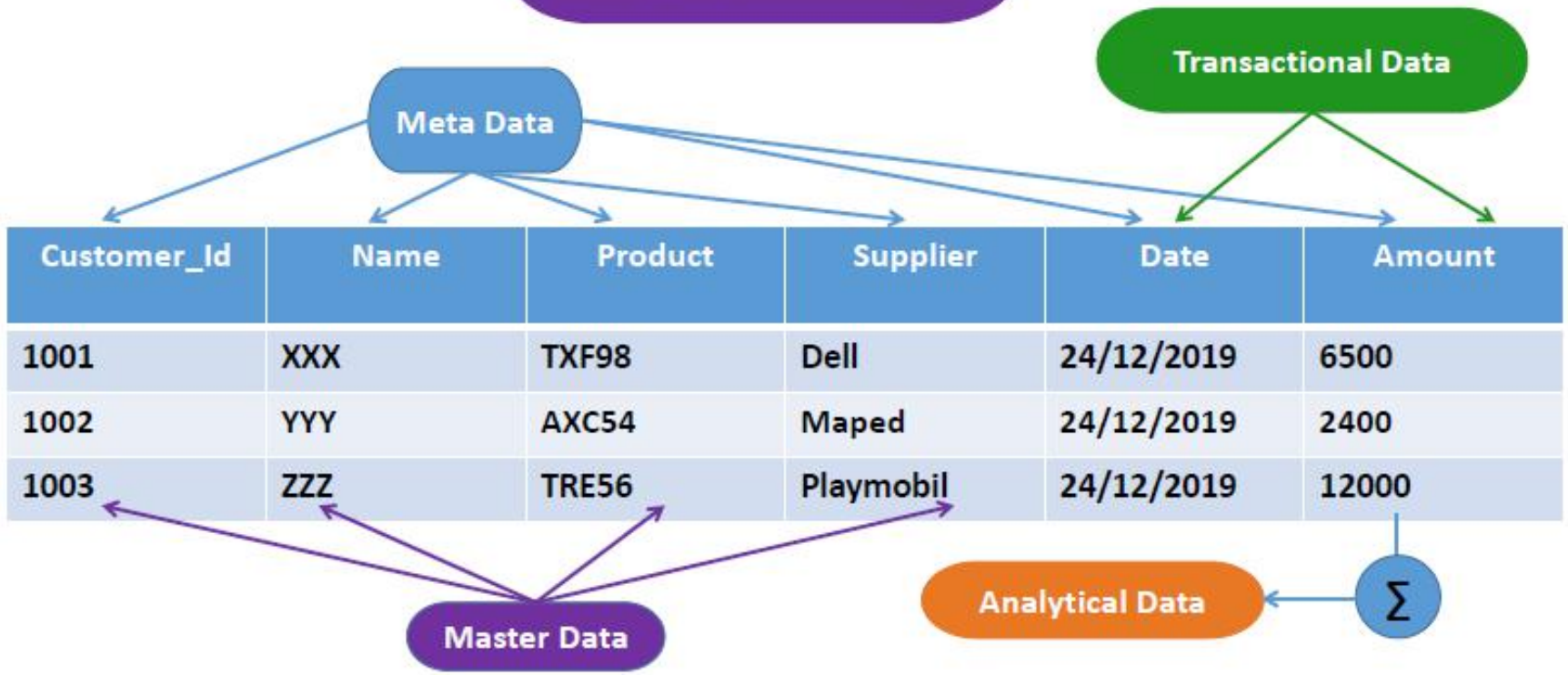


Additional data categories

- Historical data: **significant facts, as of a certain point in time, that should not be altered except to correct an error. They are important to security and compliance.**
- **Example: point-in-time reports, database snapshots**

- **Temporary data: kept in memory to speed up processing. They are not viewed by humans and are used for technical purposes.**
- Example: **copy of a table that is created during a processing session to speed up lookups.**


Describe
Meta Data
Analytical Data
Transactional Data
Master and Reference Data
Use

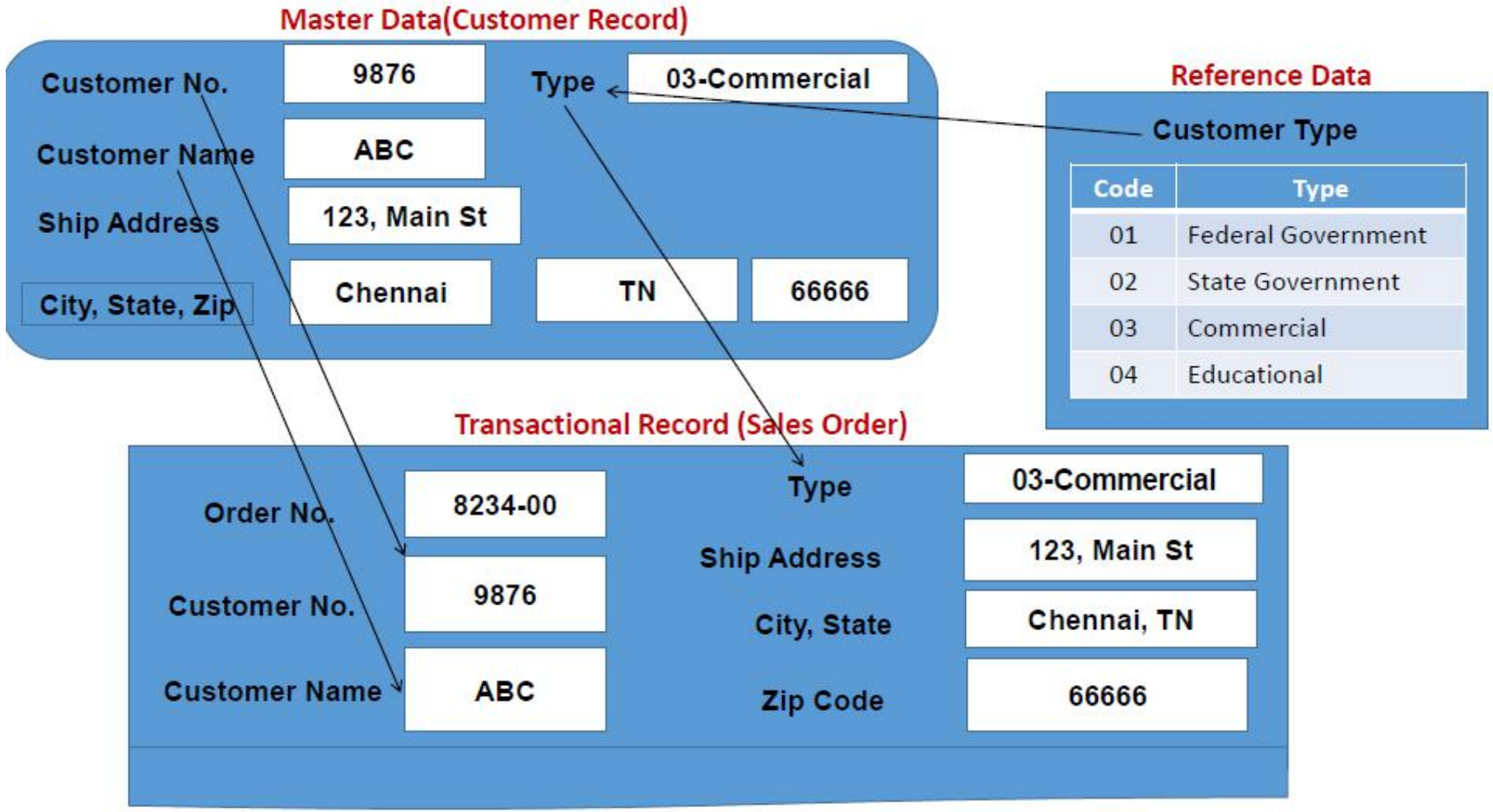

Transactional Data
Meta Data
Customer_Id
Name
Product
Supplier
Date
Amount
1001
XXX
TXF98
Dell
24/12/2019
6500
1002
YYY
AXC54
Maped
24/12/2019
2400
1003
ZZZ
TRE56
Playmobil
24/12/2019
12000
Master Data
Analytical Data
Σ

Transactional Data

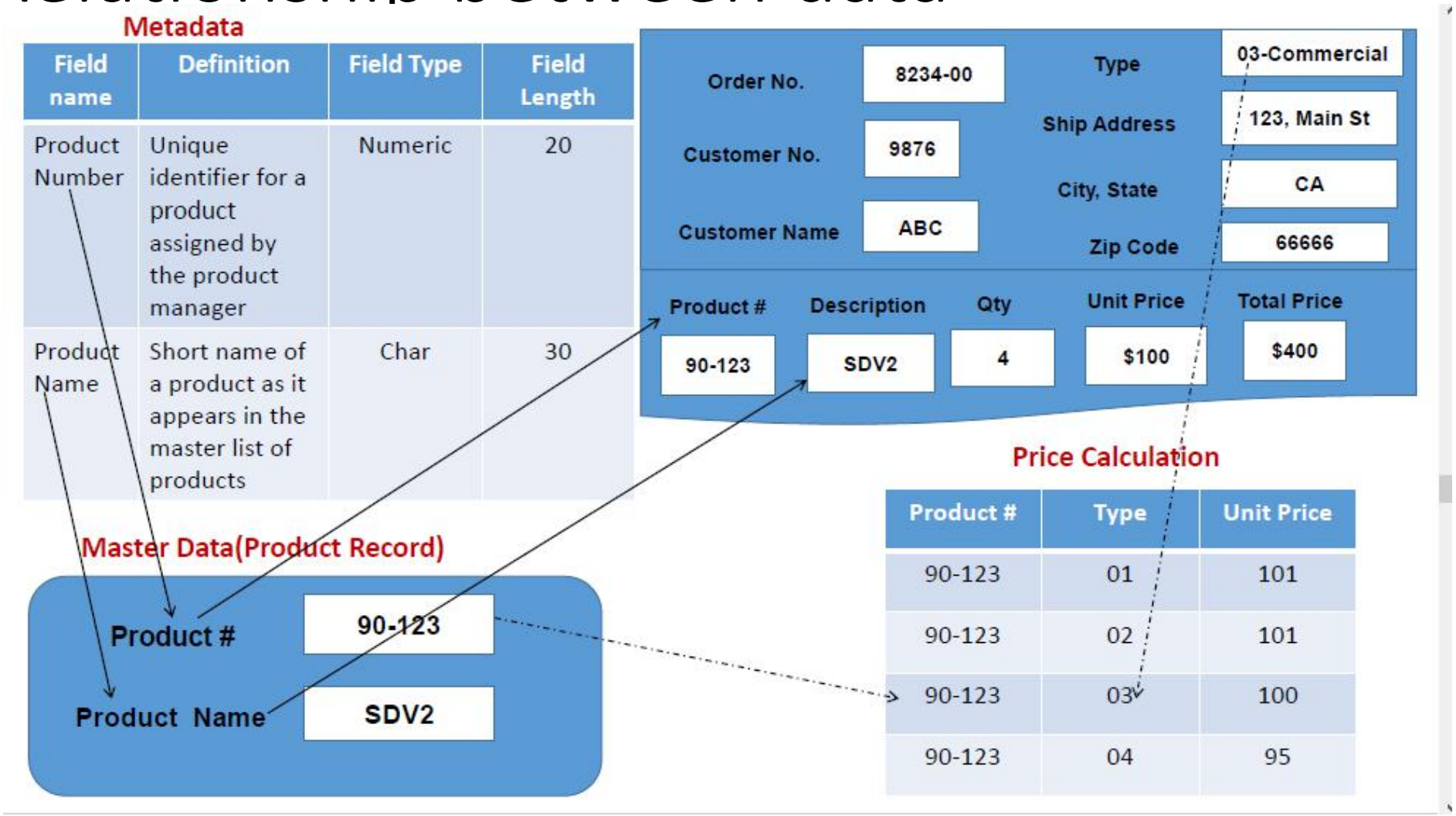
Order No.	8234-00	Type	03-Commercial
Customer No.	9876	Ship Address	123, Main St
Customer Name	ABC	City, State	Chennai, TN
		Zip Code	66666

Product #	Description	Qty	Unit Price	Total Price
90-123	SDV2	4	$100	$400

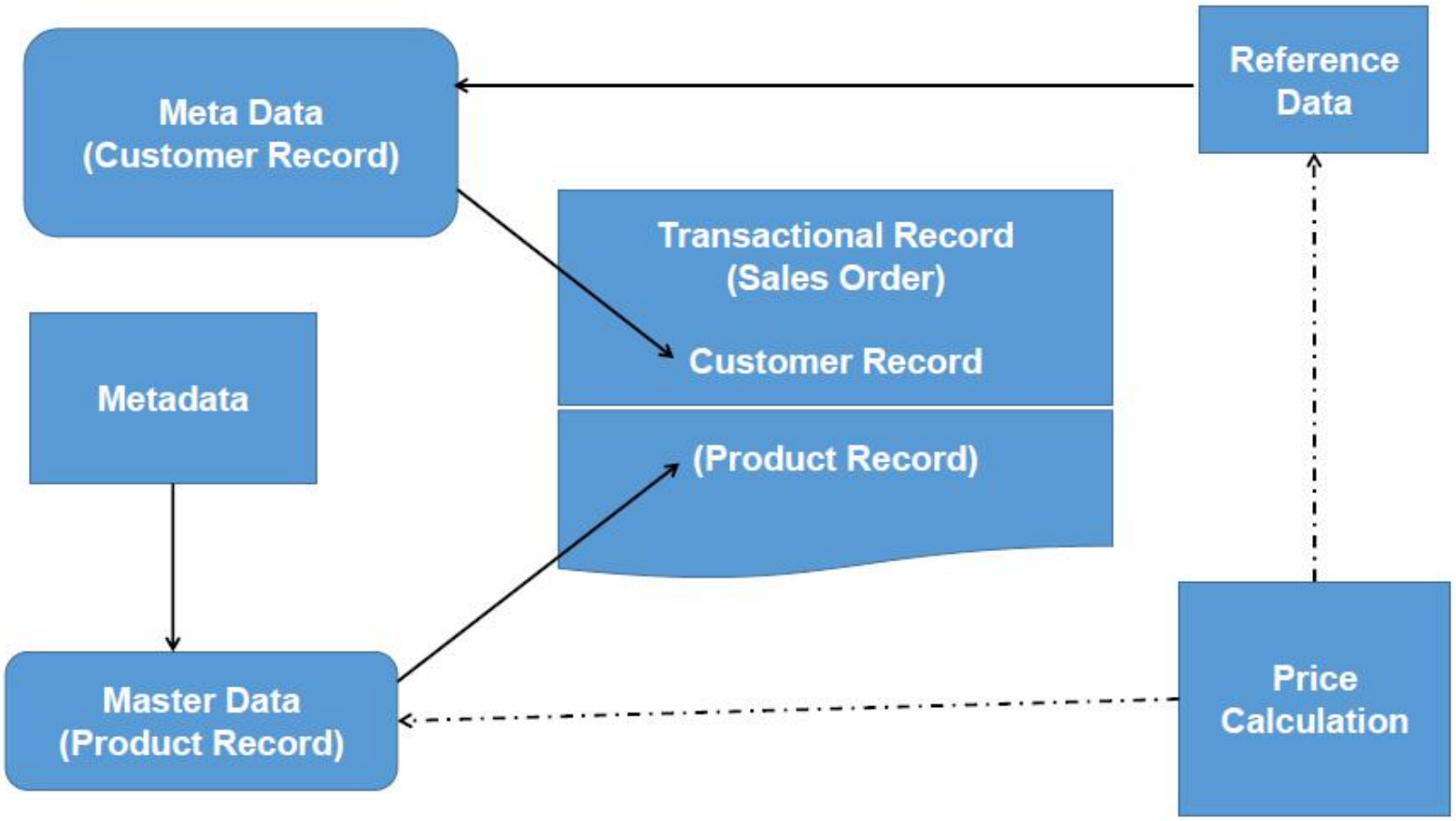
Relationship between data



Relationship between data



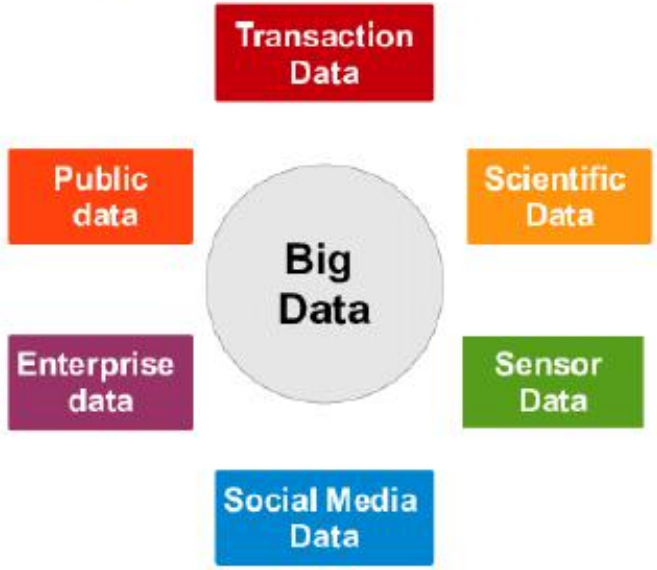
Relationship between data



Enterprise data

Big Data

- Big data is the combination of the previous four types of data: transactional data, reference data, and master data.
- Big Data is high volume, high velocity and high variety information assets that demand cost-effective innovative forms of information processing for enhanced insight and decision making.
- It cannot be effectively maintained with traditional technology.
- Big Data is a huge size data and Big Data is a phrase used to define a group of data that is large in size and still increasing exponentially with the period.



Banking. Purchase

Structured Data

Definition

Any data that can be stored, accessed and processed in the form of fixed format is termed as a 'structured' data.

Example

An Employee Table in a Database

Employee_ID	Employee_Name	Gender	Department	Salary_In_lacs
2365	Rajesh Kulkarni	Male	Finance	650000
3398	Pratibha Joshi	Female	Admin	650000
7465	Shushil Roy	Male	Admin	500000
7500	Shubhojit Das	Male	Finance	500000
7699	Priya Sane	Female	Finance	550000

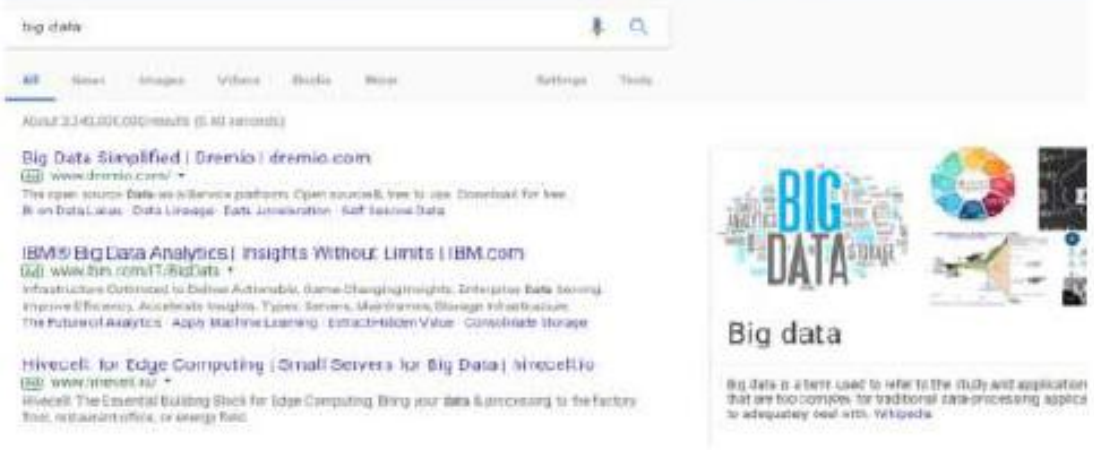
Unstructured Data

Definition

Any data with unknown form or the structure is classified as unstructured data.

Example

Google Search Result Page



Paragraphs

Listings

Descriptions.

Semi-structured Data

Definition

Any data with unknown form or the structure is classified as unstructured data.

Example

Data Growth over Years