

# Data Analytics Project

## 7. Data Varieties, Types, and Formats in Analytics



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# Two Types of Data

There are two major types of data in data analytics.

- A. **Static Data:** Data that is *received and stored* before performing analysis.
- B. **Streaming Data:** Data that is *processed and analyzed in real-time* as it's received.

Example:

For a **movie review site**, we can use data as *static data* and perform a weekly *review* of stored data. Whereas, if *results are updated continuously* then we use the *streaming data*.



# Data Types in Analytics

**Definition:** Data Type refers to the classification or categorization of data items.

**Importance** of Data Types:

1. **Interpretation:** Different types *allow systems to interpret and handle data* appropriately.
2. **Operations:** Influence *how operations* (e.g., calculations, comparisons) are *performed*.
3. **Storage:** Dictate *how data is stored* in memory or databases.
4. **Validation:** Ensure *data accuracy and integrity*.
5. **Analysis:** *Impact the methods and tools* used for data analysis.



# Common Data Types

1. **STRING:** Textual data composed of letters, numbers, and symbols, including punctuation, often with white space for formatting.
2. **INTEGERS:** Whole numbers, possibly negative, used for ordering or ranking.
3. **FLOATING POINTS:** Decimal numbers, commonly used in statistical analysis.
4. **DATE & TIME:** Records the timestamp of an observation; formats can vary.
5. **BOOLEAN:** Data treated as either True or False, often denoted as TRUE or FALSE.



# Common Data Time Formats

Below are some of the common date time formats which include **ISO 8601**, **RFC 1123**, and **American**.

Standard	Representation	Example
ISO 8601	YYYY-MM-DDTHH:MM:SS	2023-03-14T08:30:00
RFC 1123	Day, DD Mon YYYY HH:MM:SS GMT UT	Tue, 14 Mar 2023 08:30:00 GMT
American	MM/DD/YYYY HH:MM:SS AM/PM	03/14/2023 08:30:00 AM



**THANK YOU!!!** FOR YOUR SUPPORT! For Now...

Keep Learning, Keep Sharing & Keep Following  
***Aagam Deolasi.***



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