**POWERBI**

Power BI is a powerful data visualization and business intelligence tool developed by Microsoft. It enables users to connect to a variety of data sources, transform raw data into useful insights, and create interactive dashboards and reports.

Machine-to-Machine (M2M) refers to the direct communication between devices, systems, or machines without human intervention. M2M data is typically exchanged over networks to monitor, control, or automate industrial processes, vehicles, equipment, or any type of connected hardware.

PRESENTING STRUCTURED OR UNSTRUCTURED DATA GRAPHICALLY TO PRESENT INFORMATION HIDDEN IN THE DATA DIRECTLY TO PEOPLES.

* Help in visualization from making decision making.Decisions are faster and effective.
* Lulu connects- at a second of online selling it obtain an output

R**aw data** refers to unprocessed, unorganized data collected from various sources before any cleaning, transformation, or analysis.

Log data refers to the information automatically generated by systems, applications, or devices as they run, capturing key events, statuses, and errors. This data is typically stored in log files or databases and used for debugging, system monitoring, and auditing purposes.

**Get data**

**PDF** stands for **Portable Document Format**.

* developed by Adobe
* sharing documents, forms, and reports because they maintain the original formatting across all platforms.

**JSON**

* LIGHTWEIGHT, text based data format
* transmit data between a server and a web application as text, often in web APIs

**JSON Structure:**

* **Objects**: A collection of key/value pairs enclosed in curly braces {}.
* **Arrays**: An ordered list of values enclosed in square brackets [].
* **Values**: Can be strings, numbers, booleans, null, objects, or arrays.

**CSV (Comma-Separated Values)**

A **CSV** file is a simple text file that stores tabular data (numbers and text) in a plain-text format

**Text Files**

* **Definition**: A **TEXT** file is a simple file containing plain text, with no special formatting, unlike rich text formats (e.g., DOCX or PDF). It can contain any combination of characters, including letters, numbers, and symbols.

|  |  |  |
| --- | --- | --- |
| * **Content Type** | Structured data (tables) | Plain text or raw data |

|  |  |  |
| --- | --- | --- |
| **File Extension** | .csv | .txt |

|  |  |  |
| --- | --- | --- |
| **Formatting** | Data separated by commas | No formatting (plain text only) |

|  |  |  |
| --- | --- | --- |
| **Usage** | Data storage, exchange, spreadsheets | Logs, notes, configuration, scripts |

|  |  |  |
| --- | --- | --- |
| **Readability** | Easy to read for data and tables | Easy to read as plain text |

|  |  |  |
| --- | --- | --- |
| **Complexity** | More structured | No structure (freeform text) |
|  |  |  |

**XML** stands for **eXtensible Markup Language**

person>

<name>John Doe</name>

<age>28</age>

<address>

<street>123 Main St</street>

<city>New York</city>

</address>

</person>

In this example:

* <person> is the root element that contains the rest of the data.
* <name>, <age>, and <address> are child elements that contain the actual data.
* <street> and <city> are further nested inside the <address> element.

**Basic XML Syntax:**

* **Elements**: The fundamental building blocks, defined by opening and closing tags.
* **Attributes**: Additional information about an element, included within the opening tag.
* **Root Element**: Every XML document must have one root element that contains all other elements.