

BIT AND BYTE:

Bits and Bytes:

- **Bit:** The smallest unit of data in computing, representing a binary value of either 0 or 1.
- **Byte:** A group of 8 bits, often used to represent a single character (e.g., a letter or a number) in a computer.

Flow Diagram for Bytes:

Here's a simple representation of how bits form bytes and how bytes can scale up to represent larger data units:

1 Byte = 8 Bits ----- (2) ^8

| 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
| Bit | Bit | Bit | Bit | Bit | Bit | Bit | Bit |

Bytes are often scaled up in multiples of 1024 to represent larger units of data:

1. **1 Byte (B) = 8 Bits**
2. **1 Kilobyte (KB) = 1024 Bytes**
3. **1 Megabyte (MB) = 1024 KB**
4. **1 Gigabyte (GB) = 1024 MB**
5. **1 Terabyte (TB) = 1024 GB**