**Array Representation:**

Arrays are a fundamental data structure in programming that stores a collection of elements of the same data type in contiguous memory locations. Each element is identified by an index or subscript that allows for efficient access and manipulation.

**Advantages of Arrays:**

* **Efficient Memory Usage:** Arrays store elements in contiguous memory locations, making them memory-efficient.
* **Fast Access:** Arrays allow for fast access to elements using their index.
* **Cache-Friendly:** Arrays are cache-friendly, which means that the CPU can quickly access elements that are stored in the cache.