**Arrays**

Best for storing data that are in order.

**Arrays are best used for:**

* **Fast lookups** – accessing information based on their indexes
* **Fast push/pop**
* **Ordered**

**Arrays are not good for:**

* **Slow inserts**
* **Slow deletes**
* **Fixed size** \*note: only if you are using **static arrays**

lookup O(1)

push O(1)

pop O(1)

insert O(n)

search O(n)

delete O(n)

unshift O(n) – places the item in the beginning of the array strings.unshift(‘x’)

splice O(n) – places the item in the middle of the array strings.splice(2, 0, ‘dog’)

BigO(n/2) -> BigO(n)

Static Array – fixed size Need to specify the number of elements

Dynamic Array – adjustable size

**Dynamic Array**

lookup O(1)

append O(1) however this can be O(n) as well because it loops through the array and creates a new array in a new location with the added element

insert O(n)

delete O(n)