

1. There is no difference between the array capacity and size
2. When an array needs to grow beyond its current capacity, if it is dynamic, you need to allocate more memory/space in order to expand its capacity. If there is space in memory after the end of an array, then the array can expand its capacity. If the array is attempted to expand with no memory at the end available due to a variable taking that space, then the array cannot expand and will therefore need to be resized in order to reallocate more chunk of memory.
3. An example of real-world array implementations use to amortize the cost of array expansion is through dynamic arrays. Resizing arrays is not effective in space management as allocating an array will be costly. Dynamic arrays allows us to grow or shrink its capacity in order to not waste unused space and to add new elements by expanding the capacity to the needed space.