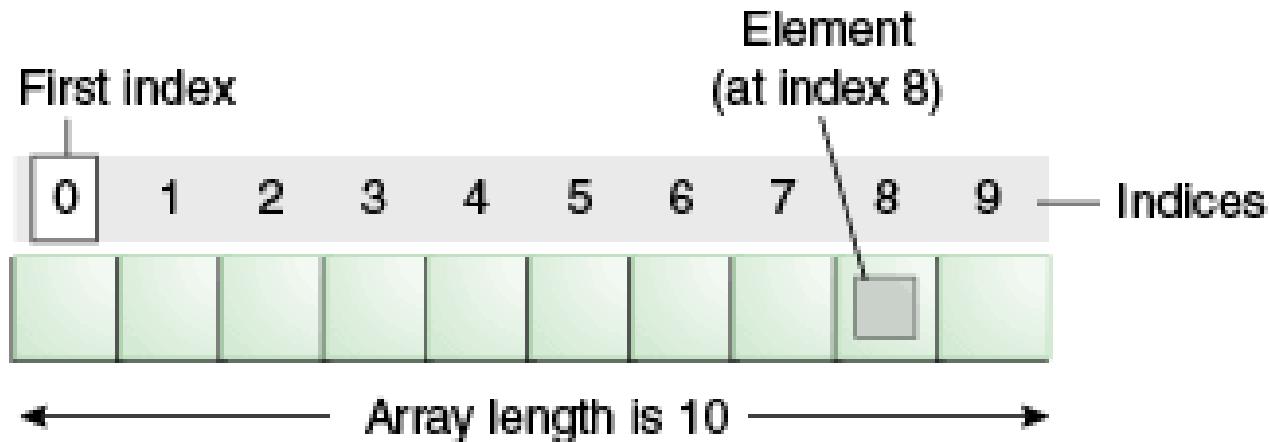




Introduction To Arrays

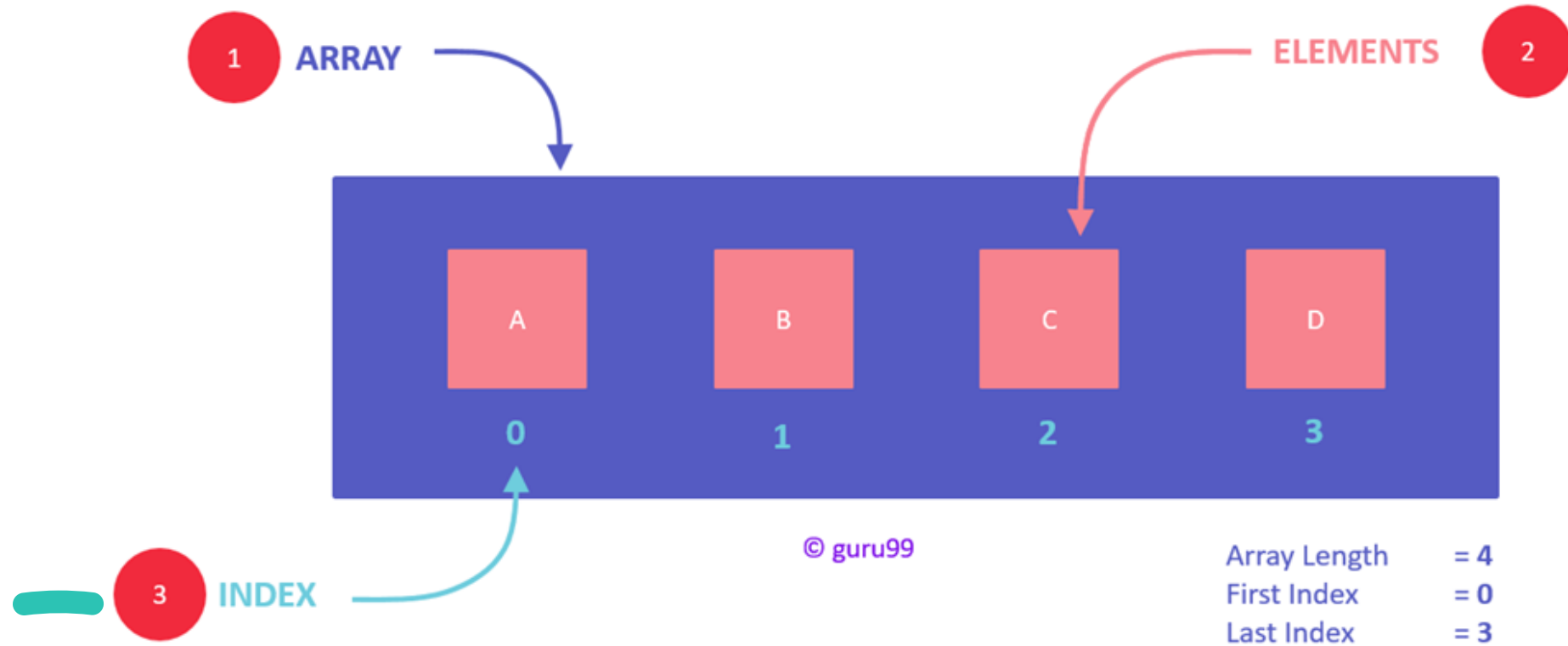
What are Arrays[] ??

- Arrays are homogenous(same type) collection of data.
- An array is a collection of items stored at contiguous memory locations. The idea is to store multiple items of the same type together.
- Creating An Array of size 5 in JAVA: **int A[] = new int [5].**
- Initializing an array : **int A[] = {2, 3, 7, 9, 1}**



Concept of Arrays

CONCEPT DIAGRAM



VARIABLE VS. ARRAY

- You can think of a **one dimensional array** as being like a book case with a separate shelf for each data item or element

partyGuests



partyGuests[1]

partyGuests[2]

partyGuests[3]

partyGuests[4]

The **array** (bookcase) is named partyGuests and each **element** (shelf) has the **same name** but a **unique index** or element number

Advantages & Disadvantages of Arrays

❑ Advantages: -

- Easy to specify
- High Performance
- Less Coding
- Random accessing of data

❑ Disadvantages: -

- It can only store same type of data.
- Needs to know it's size
- Careful designing is required

Advantages of Array

- Saves memory
- Cache Friendly
- Predictable timings with Array
- Easier debugging
- More compact in memory usage
- Advantages over variables
- Advantages over data structures
- Helps in reusability of code
- Zero-length arrays
- Multi-dimensional arrays