

# Arrays and ArrayList

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## Why Arrays?

Arrays are used to store homogeneous elements in continuous memory allocation.

Array index starts from 0.

Array advantages:  $\text{number}[0] = 1$

\* Directly assign a value

\* We access elements directly.

Disadvantages - \* Fixed size.

\* Cannot increase size after declaration.

\* Grow and shrink not available.

C++  $\rightarrow$  vector.

Python  $\rightarrow$  List.

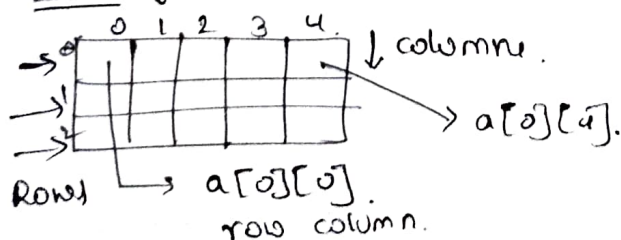
Java  $\rightarrow$  ArrayList.

} Grow Dynamically

\* Array - may store unnecessary storage.

\* In C, can write the value after the location declaration also.

## 2D Array



2D List  $\rightarrow$  it stores all types of data. So, in order to remember the value instead it remembers the address, so for that it uses a pointer value.

Array values can be accessed by specifying name of array and its index.