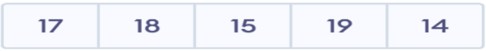
ARRAYS:

An array is a collection of similar types of data.

For example,

Suppose we need to record the age of **5** students. Instead of creating **5** separate variables, we can simply create an array:



17	18	15	19	14

Array of Age

Creating an Empty array of type Integer

```
var value = [Integer]()
```

Make sure to use parentheses to signify as empty array

To Directly Assign values to a variable of type Array:

```
var Values = [1,2,3,4,5]
```

To access the values of this array:

we can achieve this by making use of index:
for ex: to access "5" from values from above example:

```
let five = Values[4]
```

we can also create array of mixed Data types using the Keyword ANY
var address:[Any] = ["BLR", 560037]

NOTE: arrays always start from 0

Hence when comparing with count always consider array.count -1 to check with last element

1. Using append()

How to add data to existing Array -> Using APPEND()
var Values = [1,2,3,4,5]
suppose if we want to add 6 to array of values we make use of Append
Values.append(6)

Append()

Will always add element to end of array

How Can I append/merge two Arrays -> **array1.Append(contentsOf: array2)**

EX:
var array1 = [1,2,3]

Var array2 = [4,5,6]

Array1.append(contentsOf: array2)

Output: [1,2,3,4,5,6]

2. Using insert()

if we want to insert an element at specific location in an array we make use of insert()
EX:

var array1 = [1,2,3]

if we want to add “0” at the ‘0’ th element of the array we make use of insert

EX:
array1.insert(0, at:0)

Modify the Elements of an Array

Access the element using index and assing value

Var values = [0,1,2,3]

Values[0] = 00

Output = 00,1,2,3

Remove an Element from an Array

```
Var values = [0,1,2,3]

Values.remove(at: 0)
```

Output: 1,2,3

- `removeFirst()` - to remove the first element
- `removeLast()` - to remove the last element
- `removeAll()` - to remove all elements of an array

To Iterate over an array using for

```
Var values = [0,1,2,3]

For value in values {

debugPrint(value)
```

Check if an Array is Empty

The `isEmpty` property is used to check if an array is empty or not

OTHER METHODS:

`sort()`	sorts array elements
`shuffle()`	changes the order of array elements
`forEach()`	calls a function for each element
`contains()`	searches for the element in an array
`swapAt()`	exchanges the position of array elements
`reverse()`	reverses the order of array elements

Extra examples:
https://www.programiz.com/swift-programming/library/array/allsatisfy