Array
Data Structure

23	32	43	90
0	1	2	3

An Array Is a Collection Of Items
Stored In a Continuous Memory
Location, Typically of a same type

arrayOfFruits
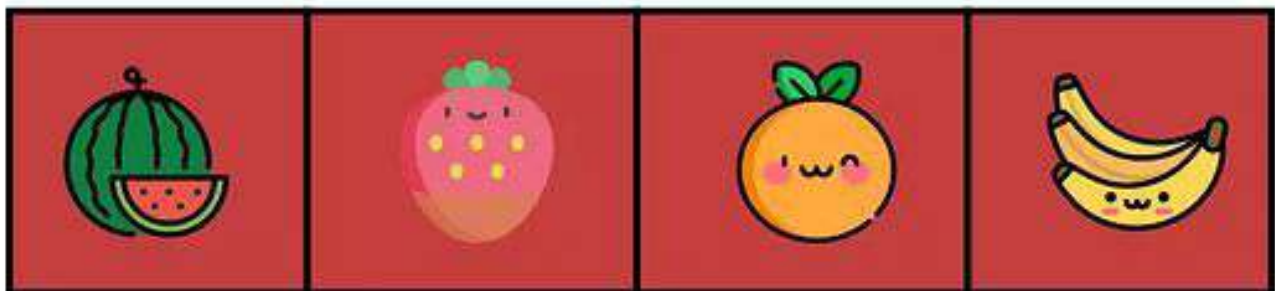
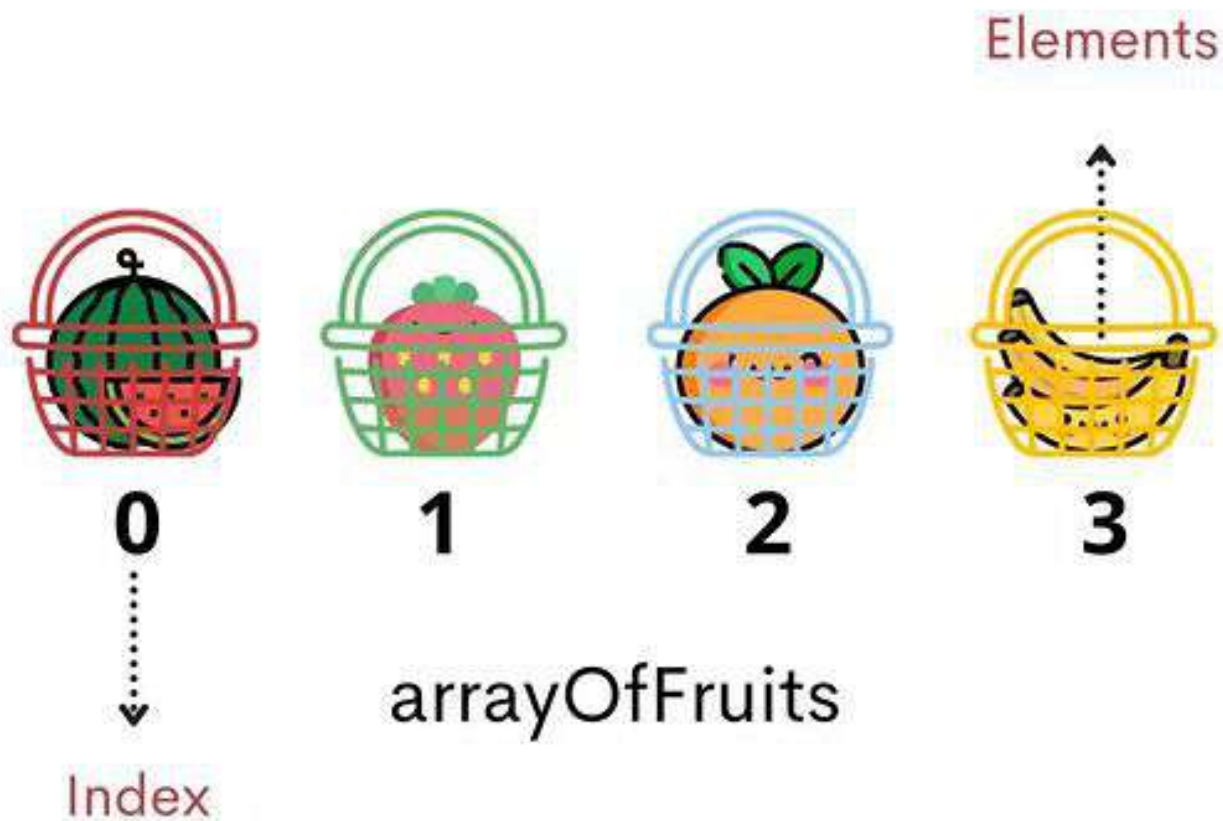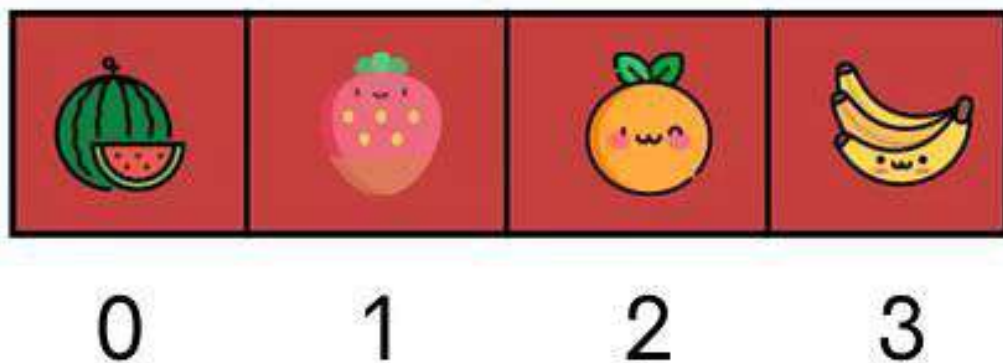0   1   2   3

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# The Idea Is To Store Multiple Items Of Same Type Together

Elements

0   1   2   3

arrayOfFruits

Index

Array Of Fruits

0	1	2	3

Name of variable

arrayOfFruits[2] = 🍊 ·········> Element

An Array Contains Data Elements Of The Same Type Stored One After Another In Memory And Each Element Is Assigned A Index Value And Array Index Is Always Starts With 0 Index Can Be Used To Access Single Element From Array

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| 0 | 1 | 2 | 3 |
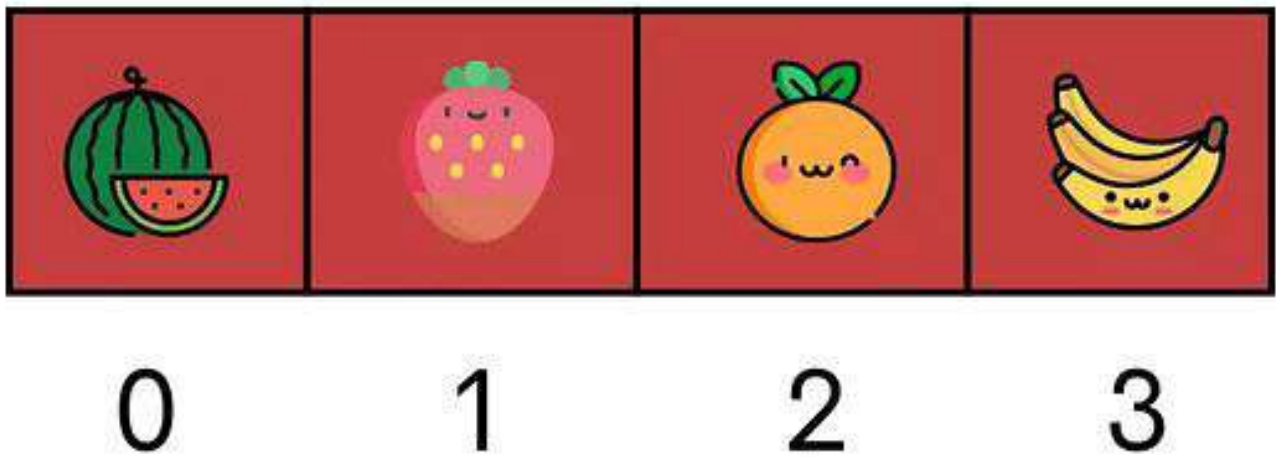
arrayOfFruits[3] = 🍌

Let's Understand It By An Example Suppose
Here We Have A Array Of Fruits It's Of Same
Type Of Fruits Now Suppose You Want The
Banana Then You Can Use Index 3 To Get It

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Types Of Array

1D Array	2D Array	3D Array

ONE Dimensional ARRAY

A One-Dimensional Array Is a
Type Of Linear Array in which the
elements are stored linearly

23	32	43	90
0	1	2	3

You can access each element individually
by specifying the index value

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MULTI Dimensional ARRAY

A Multi-Dimensional Array includes 2D And 3D Arrays. The 2D array is organized as matrices

	0	1	2	3
0	0	1	2	3
1	4	5	6	7
2	8	9	10	11

OPERATIONS YOU CAN PERFORM ON ARRAY

- TRAVERSING
- INSERSTION
- DELETION
- SEARCH
- SORTING