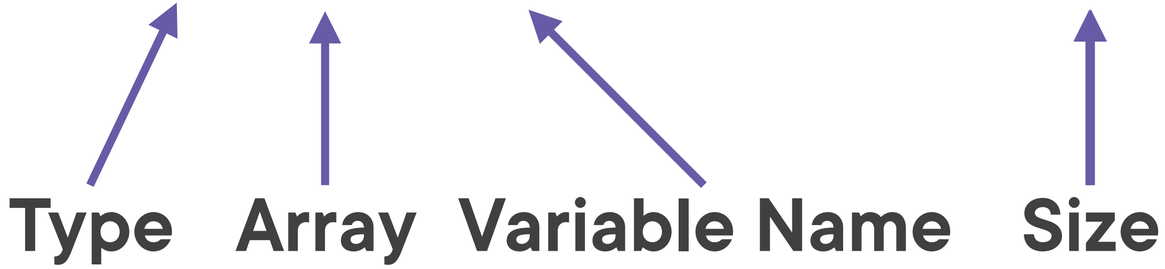
Working with Arrays

Dan Bunker
Consultant | Saas Builder | Mentor

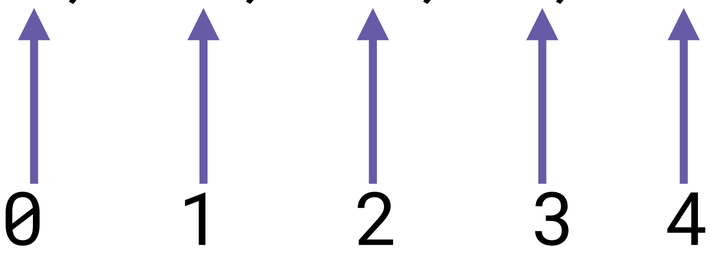
linkedin.com/in/bunkerdan

Java Primitive Arrays

```
int[] ids = new int[10];
```



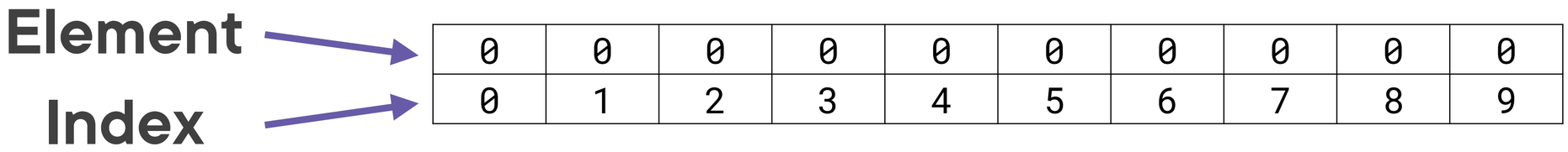

```
int[] ids = new int[] {54, 22, 37, 1, 99};
```



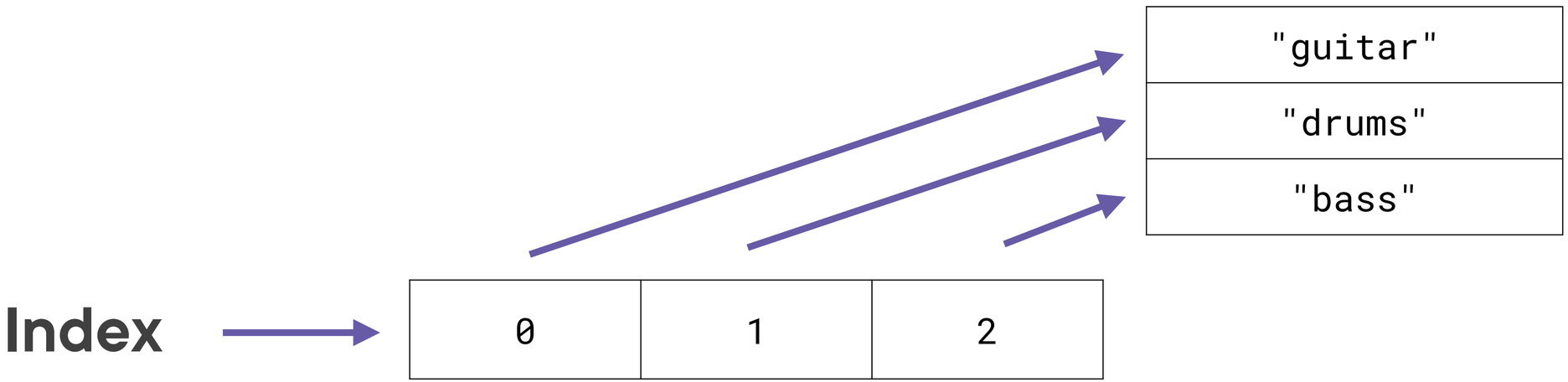

```
int[] ids = {54, 22, 37, 1, 99};
```

Array Value Allocation

```
int[] ids = new int[10];
```




```
String[] instruments = new String[]{"guitar", "drums", "bass"}
```



Demo: Searching Arrays

Element in sorted array - returns valid index position

Element NOT in sorted array - returns negative number

Array not sorted - unpredictable result

Understanding Array Comparison

`array1.equals(array2);`	**Memory address comparison**
`Arrays.equals(array1, array2);`	**Same elements in same order comparison**
`Arrays.compare(array1, array2);`	**Smaller, equals, bigger comparison**
`Arrays.mismatch(array1, array2);`	**Comparison to find where arrays differ**

Understanding Array Comparison

Https://Github.Com/Dlbunker/Ps-Collections-1Z0-819

Array 1	Array 2	Result	Why?
int[] {1,2,3}	int[] {1,2,3}	0	arrays are an exact match
int[] {1,2,3}	int[] {1,2}	> 0, positive	array 1 has more elements
int[] {1,2}	int[] {1,2,3}	< 0, negative	array 1 has less elements
String[] {"abcdefg"}	String[] {"abcdefg"}	0	arrays are an exact match
String[] {"abc"}	String[] {"abcdefg"}	< 0, negative	array1 is a substring of array 2
String[] {"abcdefg"}	String[] {"abc"}	> 0, positive	array2 is a substring of array 1
String[] {"abcdefg"}	String[] {"ABCDEFG"}	> 0, positive	Upper case is treated as smaller than lower case
String[] {"ABCDEFG"}	String[] {"abcdefg"}	< 0, negative	Upper case is treated as smaller than lower case
String[] {"abcdefg"}	String[] {null}	> 0, positive	null is smaller than any character value
String[] {null}	String[] {"abcdefg"}	< 0, negative	null is smaller than any character value
int[] {1,2,3}	String[] {"abcdefg"}	compile error	arrays must be the same data type to compare

Summary

- Declaring single and multidemensional arrays
- Iterating, sorting and searching arrays
- Arrays
- Array comparisons with equals, compare and mismatch methods