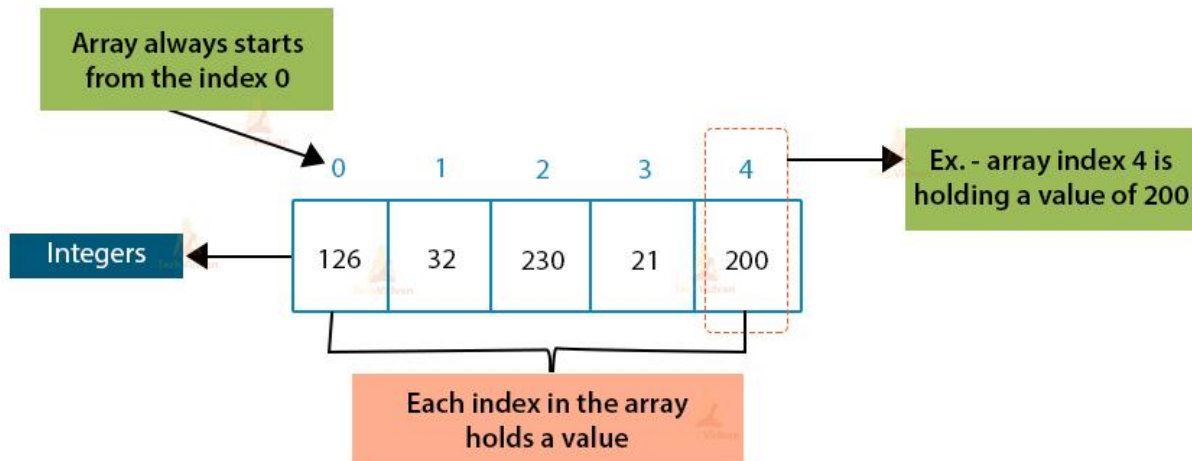


Java Arrays

Arrays are used to store multiple values in a single variable, instead of declaring separate variables for each value.

One-Dimensional Array in Java



To declare an array, define the variable type with square brackets:

```
String[] cars;
```

We have now declared a variable that holds an array of strings. To insert values to it, you can place the values in a comma-separated list, inside curly braces:

```
String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};
```

To create an array of integers, you could write:

```
int[] myNum = {10, 20, 30, 40};
```

Access the Elements of an Array

You can access an array element by referring to the index number.

This statement accesses the value of the first element in cars:

Example

```
String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};  
System.out.println(cars[0]);  
// Outputs Volvo
```

Note: Array indexes start with 0: [0] is the first element. [1] is the second element, etc.

Change an Array Element

To change the value of a specific element, refer to the index number:

Example

```
cars[0] = "Opel";
```

Example

```
String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};
cars[0] = "Opel";
System.out.println(cars[0]);
// Now outputs Opel instead of Volvo
```

Array Length

To find out how many elements an array has, use the `length` property:

Example

```
String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};
System.out.println(cars.length);
```

```
// Outputs 4
```

Loop Through an Array

You can loop through the array elements with the `for` loop, and use the `length` property to specify how many times the loop should run.

The following example outputs all elements in the cars array:

Example

```
String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};
for (int i = 0; i < cars.length; i++) {
    System.out.println(cars[i]);
}
```

Loop Through an Array with For-Each

There is also a "for-each" loop, which is used exclusively to loop through elements in arrays:

Syntax

```
for (type variable : arrayname) {  
    ...  
}
```

The following example outputs all elements in the cars array, using a "for-each" loop:

Example

```
String[] cars = {"Volvo", "BMW", "Ford", "Mazda"};  
for (String i : cars) {  
    System.out.println(i);  
}
```