

# Solution Review: Find the Maximum Value

In this review, solution of the challenge 'Find the Maximum Value' from the previous lesson is provided.

## We'll cover the following

- Solution
- How does the above code work?

## Solution #

```
class CheckMax {  
    //Returns maximum value from Array passed as parameter  
    public static int findMaxVal(int[] arr) {  
  
        int max = arr[0];  
  
        for (int i = 1; i < arr.length; i++) { //iterate over all the array elements  
  
            if (arr[i] > max) { //check if current element is greater than the already  
                //stored max value  
                max = arr[i]; // if yes then update the max value to current element  
            }  
        }  
  
        return max; //return the maximum value  
  
    } //end of findMaxValue()  
//end of CheckMax  
    public static void main( String args[] ) {  
        int array [] = {78, 89, 32, 90, 21};  
        System.out.println( "The maximum value in an array is: "+findMaxVal(array));  
    }  
}
```



## How does the above code work? #

- **Line 5:** We start by declaring an `max` variable and storing the first element of the array in it.
- **Line 7:** We are using the *for loop* to traverse through the array using the control variable `i` as the index

control variable **i** as the *index*.

- **Line 9-11:** The **if** condition is then comparing the current element with the value stored in the **max** variable. The **max** variable will be updated only if the previously stored value is lesser than the currently compared array element. Otherwise, **i** is incremented for the next repetition.
- **Line 15:** In the last statement the **max** variable is returned to the calling point.

int max = arr[0] =

5	6	3	1	10
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max = 5

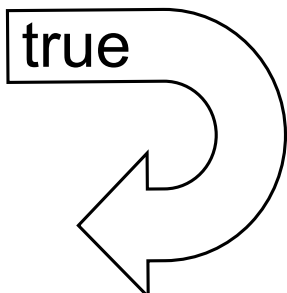
Assigning Value to max

1 of 5

i = 1

5	6	3	1	10
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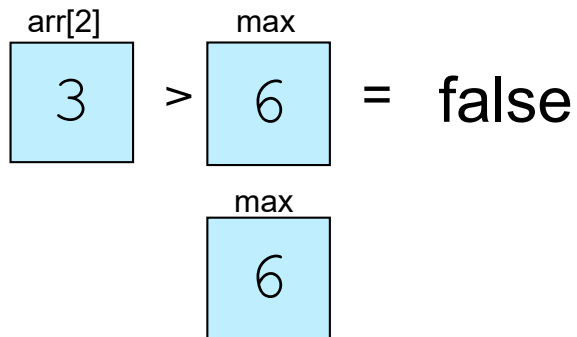
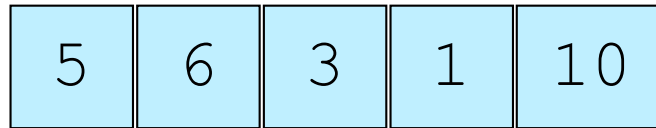
arr[1]		max	
6	>	5	= true
		max	
		6	



First Iteration

2 of 5

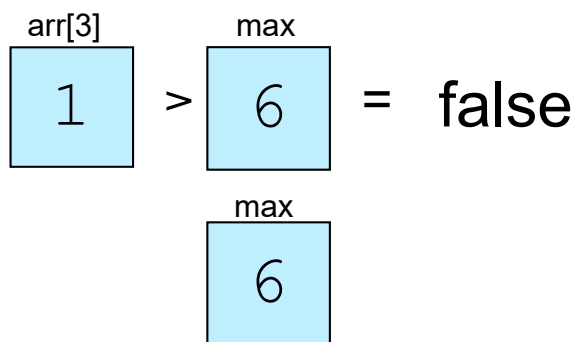
**i = 2**



Second Iteration

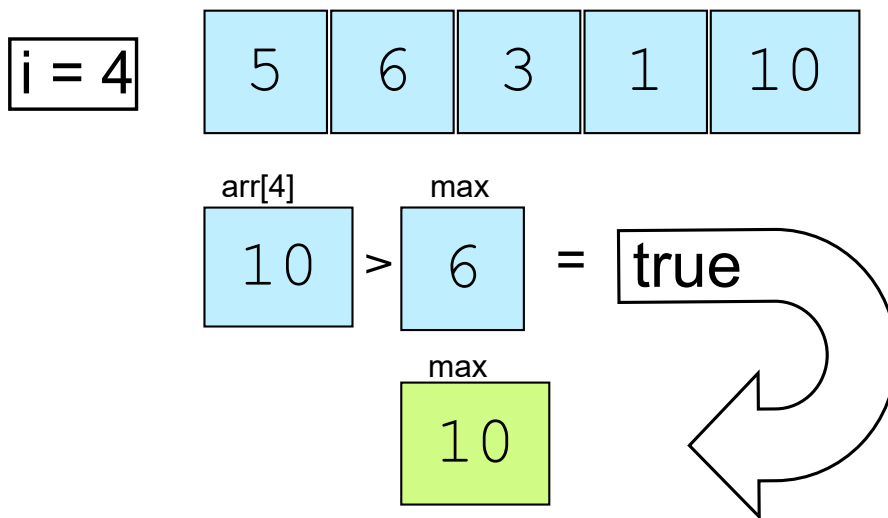
3 of 5

**i = 3**



Third Iteration

4 of 5



Last Iteration

5 of 5

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In the next challenge, we will sort the values stored in an array.