

min range  $\rightarrow$  Integer.MIN\_VALUE;

max range  $\rightarrow$  Integer.MAX\_VALUE;

Second largest

Largest  $\rightarrow$  min-value

Second largest  $\rightarrow$  min-value

$arr[i] > largest$

$largest = arr[i]$

largest = 9

$arr[i] > 0$  &  $arr[i] \neq largest$

$arr[0] > min$  &  $arr[0] \neq 9$

$9 > min$  &  $9 \neq 9$

T  
F

$6 > min$  &  $6 \neq 9$

T  
SL = ~~6~~ (7)

3.  
0 1 2 3  
9 6 9 7

$7 > 6$  &  $7 \neq 9$   
1

# HW\_Second Largest in array 2

```
public static int findsecondLargest(int arr[]){
    int n = arr.length;

    if(n <= 1){
        return Integer.MIN_VALUE;
    }

    int largest = Integer.MIN_VALUE;
    int secondLargest = Integer.MIN_VALUE;

    for(int i = 0; i < n; i++){
        if(arr[i] > largest){
            secondLargest = largest;
            largest = arr[i];
        }
        else if(arr[i] > secondLargest && arr[i] != largest){
            secondLargest = arr[i];
        }
    }
    // if all the values are same ie. no SL found
    if(secondLargest == Integer.MIN_VALUE){
        return Integer.MIN_VALUE;
    }
    return secondLargest;
}
```

n=4      0 1 2 3  
9 6 9 7      (6) 6 6

$4 \leq 1 \text{ F}$

largest = min

SL = min

i = 0 < 4

arr[0]; 9 > min

SL = min

L = 9

i = 1 < 4 T

arr[1]  
6 > 9 F

else if

arr[i] > min && arr[i] != 9  
6 > min && 6 != 9  
T T

SL = 6 (T) - 5 P

i = 2 < 4 T  
9 > 9 F  
9 > 6 && 9 != 9  
T F (F)  
i = 3 < 4 T  
7 > 9 F  
7 > 6 && 7 != 9  
T T T