EXPERIMENT- 5

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Problem-1 [Sort Colors]

1. **Implementation/Code:**

```cpp
class Solution {
public:
    void sortColors(vector<int>& nums) {
        int low = 0, mid = 0, high = nums.size()-1;
        while(mid <= high){
            if(nums[mid] == 0){
                swap(nums[low], nums[mid]);
                low++;
                mid++;}
            else if(nums[mid] == 1){
                mid++;}
            else{
                swap(nums[mid], nums[high]);
                high--;}}
    }
};
```

2. **Output:**

Testcase | >_ **Test Result**

Accepted   Runtime: 0 ms

• **Case 1**   • Case 2

Input

nums =
[2,0,2,1,1,0]

Output

[0,0,1,1,2,2]

Expected

[0,0,1,1,2,2]

Problem-2 [Kth Largest Element in an Array]

1. Implementation/Code:

```cpp
class Solution {
public:
    int findKthLargest(std::vector<int>& nums, int k) {
        std::sort(nums.begin(), nums.end(), std::greater<int>());
        return nums[k-1];
    }
};
```

2. Output:

☑ Testcase | >_ Test Result

Accepted Runtime: 0 ms

• Case 1   • Case 2

Input

```
nums =
[3,2,1,5,6,4]
```

```
k =
2
```

Output

```
5
```

Expected

```
5
```