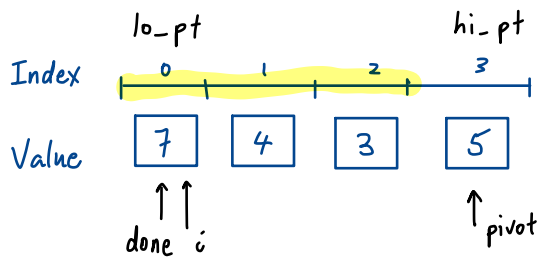
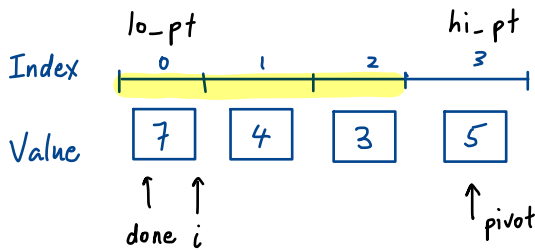


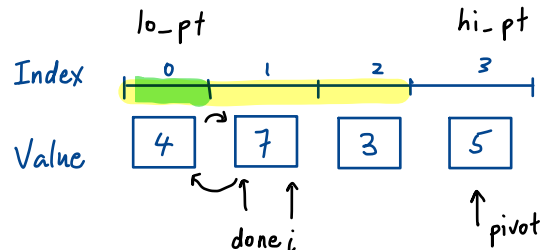
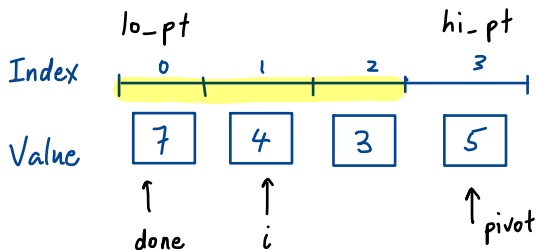
How To Quick Sort?



- ① Always make pivot sit outside the part we wish to sort
- ①.a Use done to track the sorted list



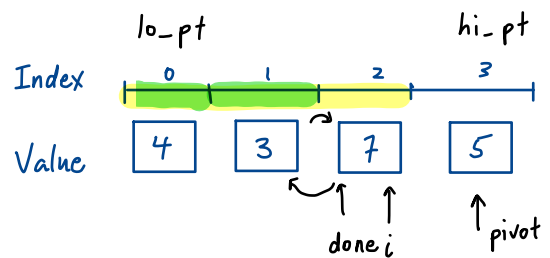
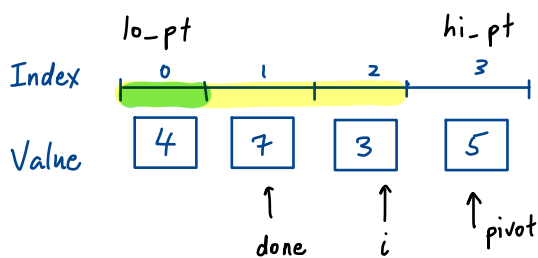
- ② Compare each value with pivot and put all the smaller value to the left
- ②.a Here 7 is not smaller than 5 so done did not increase



- ③ Here we found something that is smaller than 5 so we swap it with what was in done. By definition
- Diagram illustrating the partitioning logic:
- ```

 Done ----->
 <----- 0
 <----- 0 <= Pivot
 <----- 0 < Pivot

```



- ④ Same logic as ③

- ⑤ Reached the end! Now everything < pivot is before done which implies everything >= pivot is after done
- so we only need to swap pivot with done (value and pt) so pivot is now in the middle

