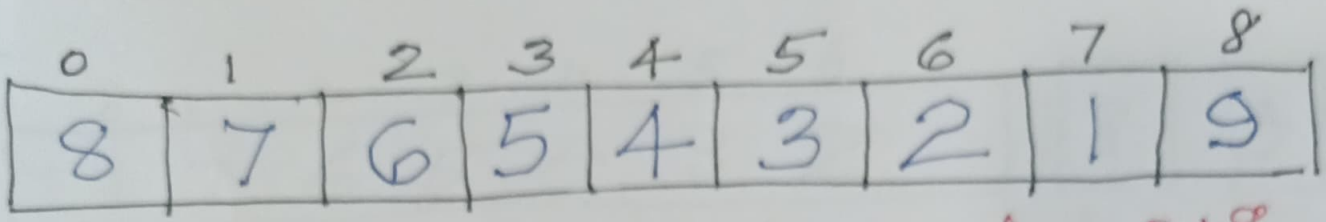


start = 0 stop = 8 mid = $\frac{0+8}{2} = 4$

A[start] = 8

A[stop] = 9

A[mid] = 4

8 7 6 5 4 3 2 1 9

Swap pivot and last item

9 7 6 5 4 3 2 1 | 8

i j pivot

Both i and j stays.

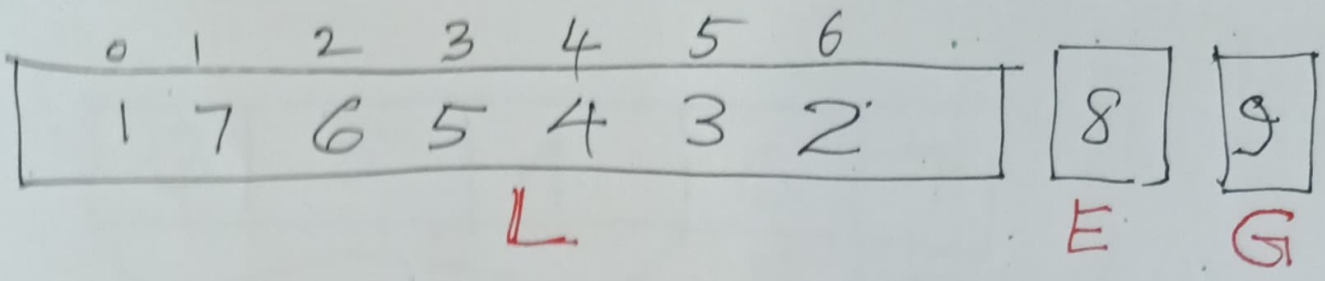
Swap and increment i, dec j

1 7 6 5 4 3 2 9 | 8

i j i pivot

cross over happened

swap pivot and value at i



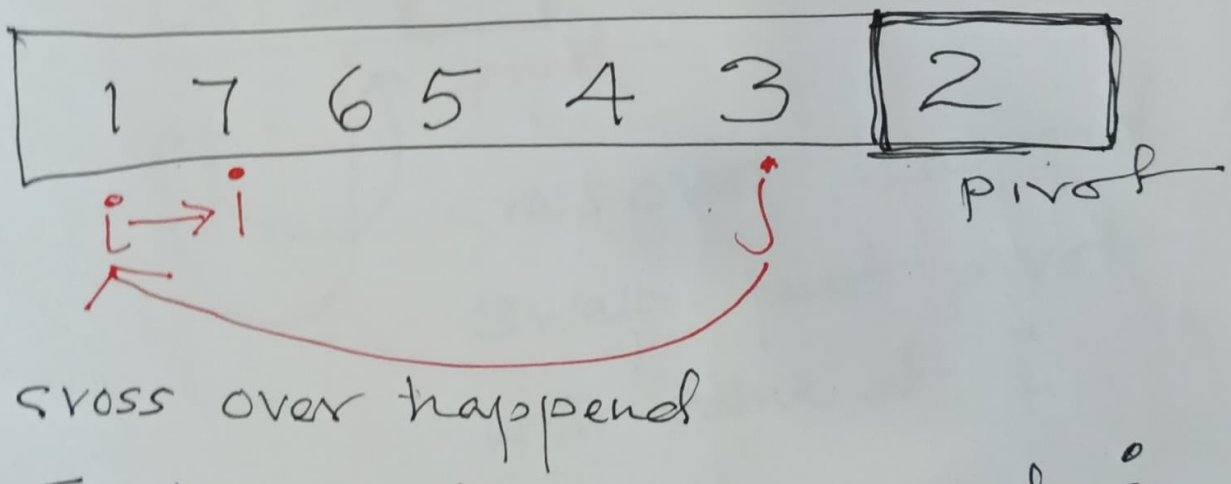
There is one recursive call (L, 0, 6)

$mid = \frac{0+6}{2} = 3$

median of {1, 5, 2} = 2.

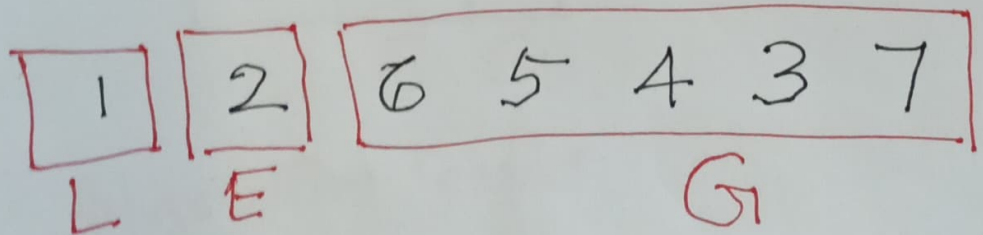
2 is the pivot.

Swap pivot with last item. (No change)

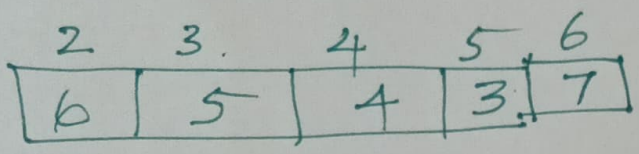


cross over happened

Swap <u>pivot</u> and <u>value at i</u>



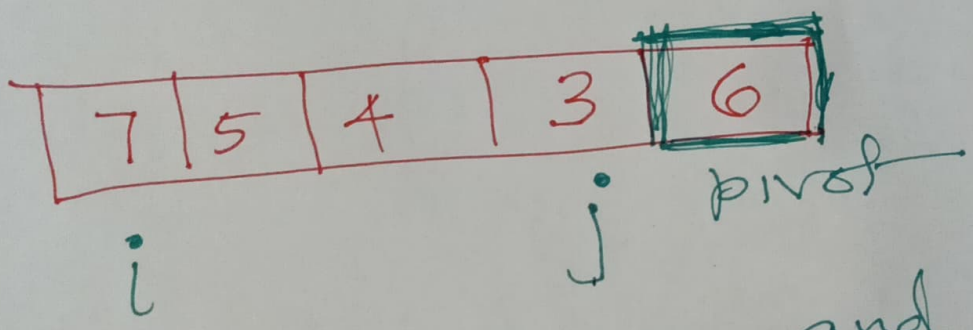
There is one recursive call



start = 2 stop = 6

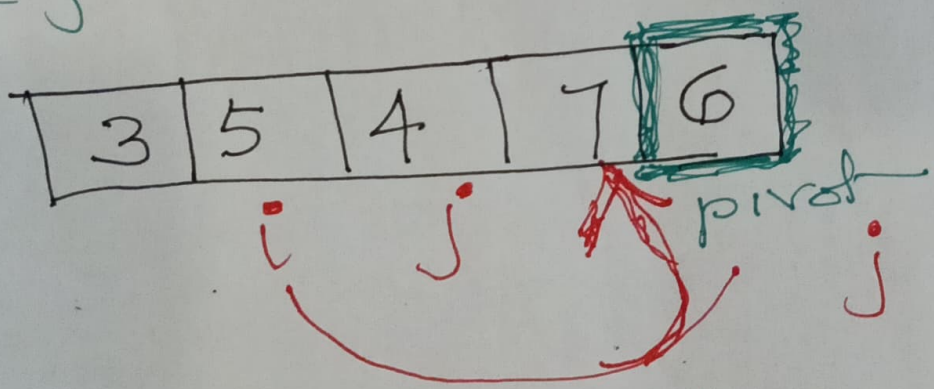
pivot = {6, 4, 7} = 6

Swap pivot with last item



No change. Swap and inc i,

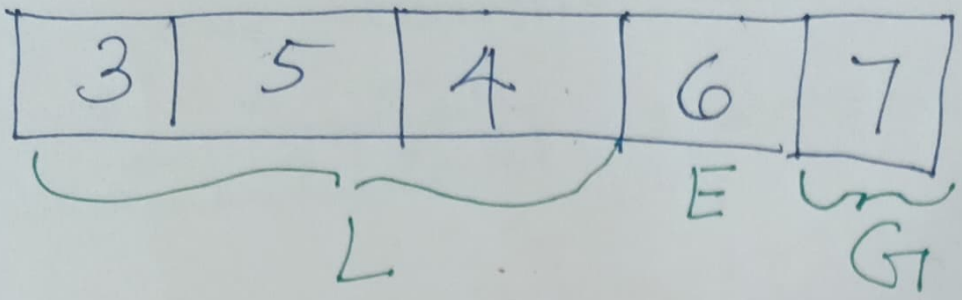
dec j

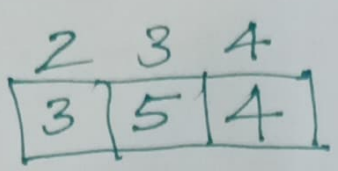


no change

Cross over happened.

swap pivot and value at i

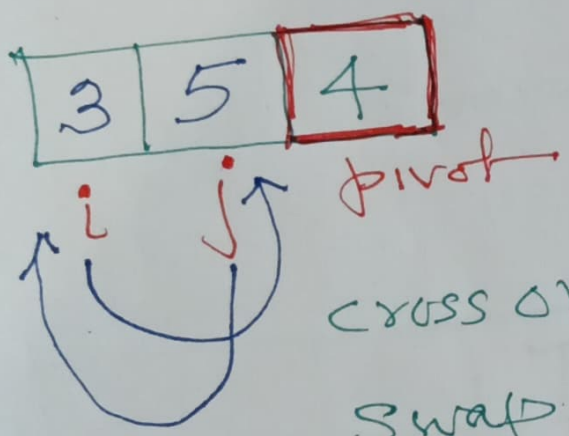


Recursive call (

)

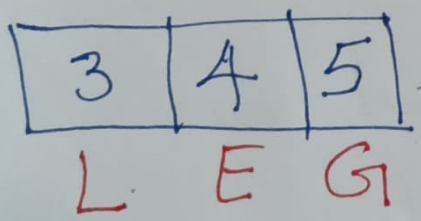
median of {3, 5, 4} = 4

pivot is 4.



cross over happend

swap ~~pivot~~ pivot with value at i



Algorithm ends