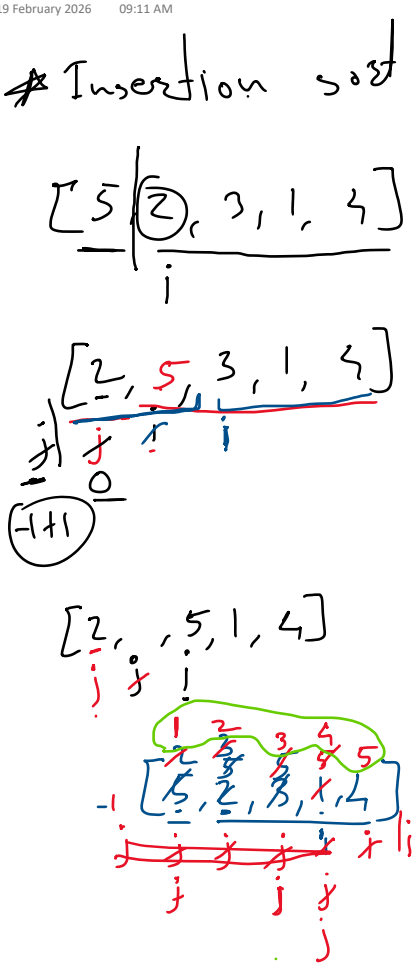
Lec21

19 February 2026 09:11 AM

Insertion sort



```
while (j>=0 && arr[j]>key){
    arr[j+1] = arr[j]
    j--
}
arr[j+1] = key
```

```
for(i=1; i<arr.length; i++){
    key = arr[i]
    j = i-1
    while(j>=0 && arr[j]>key){
        arr[j+1] = arr[j]
        j--
    }
    arr[j+1] = key
}
```

Right rotation

k=1

k%5

7%5

2

k=1 = [5,1,2,3,4]

k=2 = [4,5,1,2,3]

k=3 = [3,4,5,1,2]

k=4 = [2,3,4,5,1]

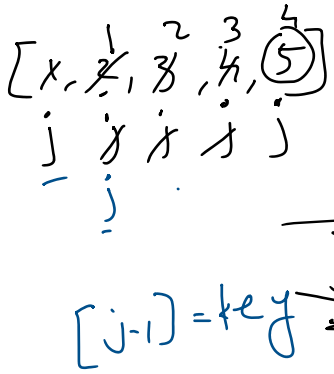
→ k=5 = [1,2,3,4,5]

k = 4 = [4, 5, 1, 2, 3]

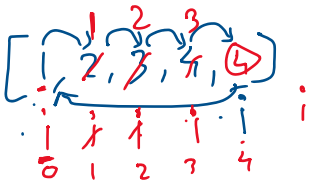
→ k = 5 = [1, 2, 3, 4, 5]

k = 6 = [5, 1, 2, 3, 4]

k = 7 = [4, 5, 1, 2, 3]



key = arr[n-1]




```
n = 5
key = 5
int i;
for(i = n-1; i > 0; i--){
    arr[i] = arr[i-1]
}
→ arr[i] = key
```