

•	4	FI	FC	TI	01	5	OR	T	A	1 0	00	RI	TH	M
-	1		18.7	-	-	 -	-		-	her	and and	" phila	d- d- b-	

Slection Sort: - Selecting an element 4 putting it on its correct index.

max swap

Example 1- 4. 5. 1. 2. 3 select largest element

4. 5. 1. 2. 3

4 then put it on

its correct index

4. 3. 1. 2. 5 - already sorted

+ swap

2, 3, 1, 4, 5

2, 1, 3, 4, 5

1,2,3,4,5 -> fully sorted

Complexity of Selection Sort.

Total companision  $\Rightarrow$   $(n-1)+(n-2)+\cdots+3+2+1+0$  $(n-1)(n) = n^2-n$ 2

Worst Case = O(N2)

Best Case = O(N2)

\* It is not Stable sorting algorithm

\* It performs well on small arrays