	Homework Questions of 24/02/2023
	on (in) (in) (in) (in) (in) on designated
QI AI	What is stable and unstable sorting algorithm. A sorting algorithm is said to be stable
	if 2 objects /elements with equal value
	appears in the same order in sorted output
	as they appear in the input data set.
	Is unstable.
	interest = CJ guilo frill
	10 1 2 1
	Stable sorted 0/b -> I (1) 2 10
	Unstable sorted 0/b -> (1) 1
	Selection sort is the unstable sorting algorithm as in this minimum element is found & is placed at appropriate position.
	algorithm as in this minimum element is
	tound & 1s placed at appropriate position.
	La de la contra del la
3	Bubble sort and insertion sort are the stable sorting algorithms.
	stable sorting agovillais.

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Table of time & space complexity of sorting algorithms.

	Space complant					
	lime	Complex	ty	NI	R	EXITY
	N	13	W	0 (1)	0(1)	W
Selection	O(n2)	$O(n^2)$	(0 (n²)	0(1)	0(1)	0(1)
Sort			YYT			
		molini.			3	
Bubble	O(n2)	O(n)	0(n ²)	0(1)	0(1)	0(1)
Sort						
EGOS	1501	46 11-20	2001/20	ACO DE	Man	1
Insertion	O(n ²)	O(n)	0(n ²)	0(1)	0(1)	0(1)
	023	Antone	han a	Anto oil	7001	1
	+ 1-11	A PI		In part		
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	Bubble Sort	Selection $O(n^2)$ Sort Bubble $O(n^2)$ Sort Insertion $O(n^2)$	Selection $O(n^2)$ $O(n^2)$ Sort Bubble $O(n^2)$ $O(n)$ Sort Insertion $O(n^2)$ $O(n)$	Selection $O(n^2)$ $O(n^2)$ $O(n^2)$ Sort Bubble $O(n^2)$ $O(n)$ $O(n^2)$ Sort Insertion $O(n^2)$ $O(n)$ $O(n^2)$	Selection $O(n^2)$ $O(n^2)$ $O(n^2)$ $O(1)$ Sort Bubble $O(n^2)$ $O(n)$ $O(n^2)$ $O(1)$ Sort Insertion $O(n^2)$ $O(n)$ $O(n^2)$ $O(1)$	Selection $O(n^2)$ $O(n^2)$ $O(n^2)$ $O(1)$ $O(1)$ $O(1)$ Sort Bubble $O(n^2)$ $O(n)$ $O(n^2)$ $O(1)$

Q3 Sort array using the inbuilt function.

int aux $[] = \{5, 4, 3, 2, 1\};$ int n = 5;

sort (au, auth) j

0/b> {1,2,3,4,5}

Which sorting algorithm is used to implement the inbuilt sort function? Intro Sort is used to implement the inbuilt sort function which is the combination of Quick Sort, Heap Sort & Insertion Sort.