

Lauren, John Enrico D.

BS CP-1

Written Exercise: Sorting Algos

Values: 53 95 33 19 75 28 88 14 66 47 11

1- Exchange Sort:

PASS	ITERATION	EXCHANGE SORT	SWAP COUNT
1	1	53, 95, 33, 19, 75, 28, 88, 14, 66, 47, 11	0
	2	53, 33, 95, 19, 75, 28, 88, 14, 66, 47, 11	1
	3	53, 33, 19, 95, 75, 28, 88, 14, 66, 47, 11	2
	4	53, 33, 19, 75, 95, 28, 88, 14, 66, 47, 11	3
	5	53, 33, 19, 75, 28, 95, 88, 14, 66, 47, 11	4
	6	53, 33, 19, 75, 28, 88, 95, 14, 66, 47, 11	5
	7	53, 33, 19, 75, 28, 88, 14, 95, 66, 47, 11	6
	8	53, 33, 19, 75, 28, 88, 14, 66, 95, 47, 11	7
	9	53, 33, 19, 75, 28, 88, 14, 66, 47, 95, 11	8
	10	53, 33, 19, 75, 28, 88, 14, 66, 47, 11, 95	9
2	1	33, 53, 19, 75, 28, 88, 14, 66, 47, 11, 95	1
	2	33, 19, 53, 75, 28, 88, 14, 66, 47, 11, 95	2
	3	33, 19, 53, 75, 28, 88, 14, 66, 47, 11, 95	2
	4	33, 19, 53, 28, 75, 88, 14, 66, 47, 11, 95	3
	5	33, 19, 53, 28, 75, 88, 14, 66, 47, 11, 95	3
	6	33, 19, 53, 28, 75, 14, 88, 66, 47, 11, 95	4
	7	33, 19, 53, 28, 75, 14, 66, 88, 47, 11, 95	5
	8	33, 19, 53, 28, 75, 14, 66, 47, 88, 11, 95	6
	9	33, 19, 53, 28, 75, 14, 66, 47, 11, 88, 95	7
3	1	19, 33, 53, 28, 75, 14, 66, 47, 11, 88, 95	1
	2	19, 33, 53, 28, 75, 14, 66, 47, 11, 88, 95	1
	3	19, 33, 28, 53, 75, 14, 66, 47, 11, 88, 95	2
	4	19, 33, 28, 53, 75, 14, 66, 47, 11, 88, 95	2
	5	19, 33, 28, 53, 14, 75, 66, 47, 11, 88, 95	3
	6	19, 33, 28, 53, 14, 66, 75, 47, 11, 88, 95	4
	7	19, 33, 28, 53, 14, 66, 47, 75, 11, 88, 95	5



S	ITERATION	EXCHANGE SORT	SWAP COUNT
	8	19, 33, 28, 53, 14, 66, 47, 11, 75, 88, 95	6
	9	19, 33, 28, 53, 14, 66, 47, 11, 75, 88, 95	6
	1	19, 33, 28, 53, 14, 66, 47, 11, 75, 88, 95	0
	2	19, 28, 33, 53, 14, 66, 47, 11, 75, 88, 95	1
	3	19, 28, 33, 53, 14, 66, 47, 11, 75, 88, 95	1
	4	19, 28, 33, 14, 53, 66, 47, 11, 75, 88, 95	2
	5	19, 28, 33, 14, 53, 66, 47, 11, 75, 88, 95	2
	6	19, 28, 33, 14, 53, 47, 66, 11, 75, 88, 95	3
	7	19, 28, 33, 14, 53, 47, 11, 66, 75, 88, 95	4
	8	19, 28, 33, 14, 53, 47, 11, 66, 75, 88, 95	4
	9	19, 28, 33, 14, 53, 47, 11, 66, 75, 88, 95	4
	10	19, 28, 33, 14, 53, 47, 11, 66, 75, 88, 95	4
	1	19, 28, 33, 14, 53, 47, 11, 66, 75, 88, 95	0
	2	19, 28, 33, 14, 53, 47, 11, 66, 75, 88, 95	0
	3	19, 28, 14, 33, 53, 47, 11, 66, 75, 88, 95	1
	4	19, 28, 14, 33, 53, 47, 11, 66, 75, 88, 95	1
	5	19, 28, 14, 33, 47, 53, 11, 66, 75, 88, 95	2
	6	19, 28, 14, 33, 47, 11, 53, 66, 75, 88, 95	3
	7	19, 28, 14, 33, 47, 11, 53, 66, 75, 88, 95	3
	8	19, 28, 14, 33, 47, 11, 53, 66, 75, 88, 95	3
	9	19, 28, 14, 33, 47, 11, 53, 66, 75, 88, 95	3
	10	19, 28, 14, 33, 47, 11, 53, 66, 75, 88, 95	3
6	1	19, 28, 14, 33, 47, 11, 53, 66, 75, 88, 95	0
	2	19, 14, 28, 33, 47, 11, 53, 66, 75, 88, 95	1
	3	19, 14, 28, 33, 47, 11, 53, 66, 75, 88, 95	1
	4	19, 14, 28, 33, 47, 11, 53, 66, 75, 88, 95	1
	5	19, 14, 28, 33, 11, 47, 53, 66, 75, 88, 95	2
	6	19, 14, 28, 33, 11, 47, 53, 66, 75, 88, 95	2
	7	19, 14, 28, 33, 11, 47, 53, 66, 75, 88, 95	2
	8	19, 14, 28, 33, 11, 47, 53, 66, 75, 88, 95	2



PASS	ITERATION	EXCHANGE SORT	SWAP COUNT
6	9	19, 14, 28, 33, 11, 47, 53, 64, 75, 88, 95	2
	10	19, 14, 28, 33, 11, 47, 53, 64, 75, 88, 95	2
	1	14, 19, 28, 33, 11, 47, 53, 64, 75, 88, 95	1
	2	14, 19, 28, 33, 11, 47, 53, 64, 75, 88, 95	1
	3	14, 19, 28, 33, 11, 47, 53, 64, 75, 88, 95	1
	4	14, 19, 28, 11, 33, 47, 53, 64, 75, 88, 95	2
	5	14, 19, 28, 11, 33, 47, 53, 64, 75, 88, 95	2
	6	14, 19, 28, 11, 33, 47, 53, 64, 75, 88, 95	2
	7	14, 19, 28, 11, 33, 47, 53, 64, 75, 88, 95	2
	8	14, 19, 28, 11, 33, 47, 53, 64, 75, 88, 95	2
7	9	14, 19, 28, 11, 33, 47, 53, 64, 75, 88, 95	2
	10	14, 19, 28, 11, 33, 47, 53, 64, 75, 88, 95	2
	1	14, 19, 28, 11, 33, 47, 53, 64, 75, 88, 95	0
	2	14, 19, 28, 11, 33, 47, 53, 64, 75, 88, 95	0
	3	14, 19, 11, 28, 33, 47, 53, 64, 75, 88, 95	1
	4	14, 19, 11, 28, 33, 47, 53, 64, 75, 88, 95	1
	5	14, 19, 11, 28, 33, 47, 53, 64, 75, 88, 95	1
	6	14, 19, 11, 28, 33, 47, 53, 64, 75, 88, 95	1
	7	14, 19, 11, 28, 33, 47, 53, 64, 75, 88, 95	1
	8	14, 19, 11, 28, 33, 47, 53, 64, 75, 88, 95	1
8	9	14, 19, 11, 28, 33, 47, 53, 64, 75, 88, 95	1
	10	14, 19, 11, 28, 33, 47, 53, 64, 75, 88, 95	1
	1	14, 19, 11, 28, 33, 47, 53, 64, 75, 88, 95	0
	2	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	3	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	4	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	5	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	6	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	7	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	8	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
9	9	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	10	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	1	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	0
	2	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	3	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	4	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	5	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	6	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	7	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	8	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
10	9	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	10	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	1	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	2	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	3	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	4	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	5	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	6	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	7	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1
	8	14, 11, 19, 28, 33, 47, 53, 64, 75, 88, 95	1



10	1	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	1
	2	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	1
	3	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	1
	4	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	1
	5	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	1
	6	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	1
	7	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	1
	8	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	1
	9	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	1
	10	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	1
11	1	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	0
	2	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	0
	3	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	6
	4	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	0
	5	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	0
	6	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	6
	7	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	0
	8	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	0
	9	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	0
	10	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95	0

2. Selection Sort :

PASS	ITERATION	SELECTION SORT
1	1	11, 95, 33, 19, 75, 28, 88, 14, 66, 47, 53
	2	11, 14, 33, 19, 75, 28, 88, 95, 66, 47, 53
	3	11, 14, 19, 33, 75, 28, 88, 95, 66, 47, 53
	4	11, 14, 19, 28, 75, 33, 88, 95, 66, 47, 53
	5	11, 14, 19, 28, 33, 75, 88, 95, 66, 47, 53
	6	11, 14, 19, 28, 33, 47, 88, 95, 66, 75, 53
	7	11, 14, 19, 28, 33, 47, 53, 95, 66, 75, 88
	8	11, 14, 19, 28, 33, 47, 53, 66, 95, 75, 88
	9	11, 14, 19, 28, 33, 47, 53, 66, 75, 95, 88
	10	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95



### 3. Insertion Sort:

PASS	ITERATION	INSERTION SORT
1	1	53, 95, 33, 19, 75, <del>28</del> , 88, 14, 66, 47, 11
	2	11, 53, 95, 33, 19, 75, 28, 88, 14, 66, 47
	3	11, 14, 53, 95, 33, 19, 75, 28, 88, 66, 47
	4	11, 14, 19, 53, 95, 33, 75, 28, 88, 66, 47
	5	11, 14, 19, 28, 53, 95, 33, 75, 88, 66, 47
	6	11, 14, 19, 28, 33, 53, 95, 75, 88, 66, 47
	7	11, 14, 19, 28, 33, 47, 53, 95, 75, 88, 66
	8	11, 14, 19, 28, 33, 47, 53, 66, 95, 75, 88
	9	11, 14, 19, 28, 33, 47, 53, 66, 75, 95, 88
	10	11, 14, 19, 28, 33, 47, 53, 66, 75, 88, 95