

Data Structure HW7

1.

Insertion Sort

i round	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
-	60	50	20	35	40	91	65	110	70	10
1	50	60	20	35	40	91	65	110	70	10
2	20	50	60	35	40	91	65	110	70	10
3	20	35	50	60	40	91	65	110	70	10
4	20	35	40	50	60	91	65	110	70	10
5	20	35	40	50	60	91	65	110	70	10

Quick Sort (Use () as circle)

i round	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
-	60	50	20	35	40	91	65	110	70	10
1	10	50	20	35	40	(60)	65	110	70	91
2	(10)	50	20	35	40	60	65	110	70	91
3	10	40	20	35	(50)	60	65	110	70	91
4	10	35	20	(40)	50	60	65	110	70	91
5	10	20	(35)	40	50	60	65	110	70	91

Merge Sort(recursive version)

i round	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
-	60	50	20	35	40	91	65	110	70	10
1	50	60	20	35	40	65	91	110	70	10
2	20	50	60	35	40	65	91	110	10	70
3	20	35	40	50	60	10	65	70	91	110
4	10	20	35	40	50	60	65	70	91	110

2.

i round	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
-	60	50	20	35	40	91	65	110	70	10

i round	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
step 1	10	35	20	60	40	91	65	110	70	50
step 2.1	20	35	50	60	40	91	65	110	70	10
step 2.2	35	40	50	60	70	91	65	110	20	10
step 2.3	40	60	50	110	70	91	65	35	20	10
step 2.4	50	60	65	110	70	91	40	35	20	10
step 2.5	60	70	65	110	91	50	40	35	20	10

3.

LSD

[i]	[0]	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
goods[i].k	k[0]=A	k[0]=5	k[0]=C	k[0]=K	k[0]=X	k[0]=5	k[0]=A	k[0]=5	k[0]=K	k[0]=B
	k[1]=C	k[1]=D	k[1]=A	k[1]=B	k[1]=V	k[1]=C	k[1]=A	k[1]=A	k[1]=V	k[1]=C
	k[2]=D	k[2]=D	k[2]=B	k[2]=I	k[2]=J	k[2]=I	k[2]=I	k[2]=J	k[2]=I	k[2]=J
	k[3]=6	k[3]=6	k[3]=8	k[3]=8	k[3]=7	k[3]=8	k[3]=9	k[3]=8	k[3]=8	k[3]=9
	k[4]=D	k[4]=C	k[4]=D	k[4]=A	k[4]=D	k[4]=C	k[4]=D	k[4]=A	k[4]=A	k[4]=D
1	[3]	[7]	[8]	[1]	[5]	[0]	[2]	[4]	[6]	[9]
2	[1]	[0]	[2]	[4]	[3]	[7]	[8]	[5]	[6]	[9]
3	[2]	[1]	[0]	[3]	[8]	[5]	[6]	[4]	[7]	[9]
4	[2]	[6]	[7]	[3]	[0]	[5]	[9]	[1]	[8]	[4]
5	[7]	[5]	[1]	[6]	[0]	[9]	[2]	[3]	[8]	[4]

MSD

[i]	[0]	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
goods[i].k	k[0]=A	k[0]=5	k[0]=C	k[0]=K	k[0]=X	k[0]=5	k[0]=A	k[0]=5	k[0]=K	k[0]=B
	k[1]=C	k[1]=D	k[1]=A	k[1]=B	k[1]=V	k[1]=C	k[1]=A	k[1]=A	k[1]=V	k[1]=C
	k[2]=D	k[2]=D	k[2]=B	k[2]=I	k[2]=J	k[2]=I	k[2]=I	k[2]=J	k[2]=I	k[2]=J
	k[3]=6	k[3]=6	k[3]=8	k[3]=8	k[3]=7	k[3]=8	k[3]=9	k[3]=8	k[3]=8	k[3]=9
	k[4]=D	k[4]=C	k[4]=D	k[4]=A	k[4]=D	k[4]=C	k[4]=D	k[4]=A	k[4]=A	k[4]=D
1	[1]	[5]	[7]	[0]	[6]	[9]	[2]	[3]	[8]	[4]
2	[7]	[5]	[1]	[6]	[0]	[9]	[2]	[3]	[8]	[4]
3	[7]	[5]	[1]	[6]	[0]	[9]	[2]	[3]	[8]	[4]
4	[7]	[5]	[1]	[6]	[0]	[9]	[2]	[3]	[8]	[4]
5	[7]	[5]	[1]	[6]	[0]	[9]	[2]	[3]	[8]	[4]