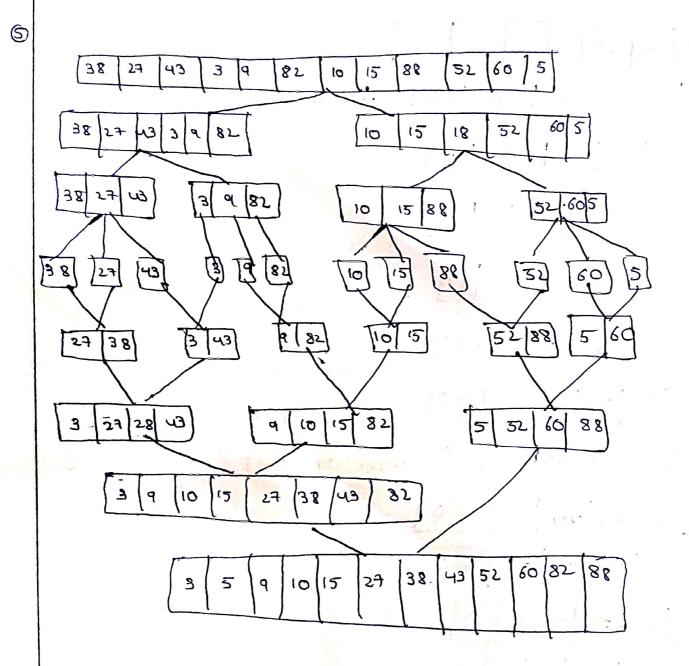
(1) Sout the following relements using monge south divide and rangues [38,27,43, 3,9,84 10, 15, 88, 52, 60, 2) using and analysize time complexity of the algorithm.



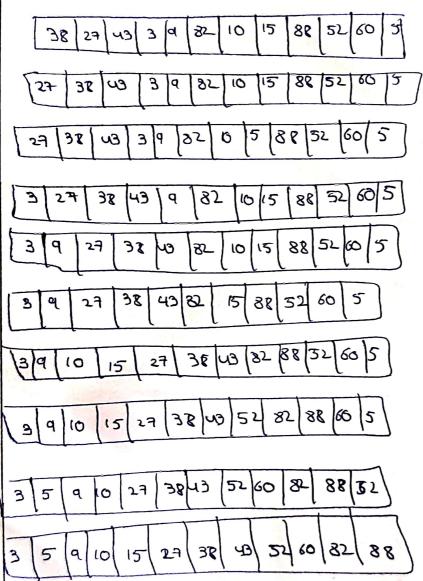
: soated list = [3,3,9,10,15,27, 38,43, 52,60, 82,88]

Time complexity = o(n)

(3) Sost the 2000ay 64,34,25,12,11,90 using bubble SOOH. what is the time complexity of adultion sout in that best, worth average cases. (5) 2 sorted asistay: (1, 12, 22, 25, 34, 40, 64) selection sout! Time complexity: 25/22 40 11/64 Best rase : O(14) 11 64 12 Average : o(n) 40 wast as: dne) 40 25 PE 32 40 64 34 64 34 40 112 122

soort the assay 64,23,12,22,11 using selection soort what is time (3) complexity of selection sost in the best, worst and average cases. (S) 6-1 list is 11, 12, 22, 25, 6-1 : Sootld Time camplexity: selection soul! Best var: o(nº) Ausage: o(ny) (A) : tereso

(5) SOSH the following elements using insention sost using brute force approach stately (38,27,49,3,9,82,10,15,38,52,60,5) and analyze time complexity of the algorithm



Time complexity: worst case: o(n)

Aveoge are ; o(n²)

Best rate: c(n)

South the following elements using insertion south using Bouth to approach stacks, analysis completely of algorithm.

(5) Insest :-2 = [-2,4] | hsest: -9 = [-9,-6,-5,-4,-3,-2,-1,01,2,3,4,5,6,7,8,8,9,101]
insest: -2 = [-2,4]

insest: 5 = [-2,4,5] Time complexity = Bost: O(1)

noest: 3 = [-2,3,4,5] Avoid: $O(n^2)$

insat: 10=[-1,3,4,5,16] worst: dn')

insent: 5 = [-5, -2, 3, 2,5,16]

insest: 2= [-5,-2,2,3,4,5,10]

insest: 8 = [-3,-2, 2,3, 4,5,8,10]

meat:-3= (-3,-3,-2,2,3,4,5,8,10)

most: 6 = [-5,-3,-2,2,3,4,5,6,8,10]

insest: 7 = [-5, -3, -2, 2, 3, 4, 5, 6, 7, 8, 16]

MESH: -4=[-5,-4,-7,-2,2,7,4,5,6,7,8,16]

insest: 1=[-5,-4,-3,-2,1,2,3,4,5,6,7,8,10]

Inseq+: 9= (-5,-4,-2-2,1,2,3,4,5,6,7,8,9,6)

insent: 1= (-5,-4,-3,-2,-1, 1, 2, 3, 4,5,6,7,8,9,10)

Insext: 6= [-5,-4,-3,-2,-10,1,2,3,4,3,6,7,8,9,10]

INSex13-6:=[-6,-5,-4,-3,-2,-1,0,1,2,3,45,6,7,8)9,6)

inseqt=18=[-6,-5,-4,-3,-2-40,1,2,3,4,5,6,7,0,0,9,10,11]