Name >	JOHN Aggerical	
burse =	B-sech (IT)	Page No
Wol 20:3)	1913078	The state of the s
14.	D.S Assignment	<u> </u>
Que		Mary of
	Let the alray be:	10-6 100
	21.67	0
	ar []= 21,2,3,	
The N	which is obready	Sorted
	Insertion sort Algo:	De Company
	Sou Myo.	- Mill
	for lint izl; ien	Sind of the
	Control of the south on	Lui Day (F)
100	Key = ars (:7.	Profilestri
	Key = ars[i];	andlenin
t e	J= i-1	.)
	while (j >= 0 88	ars [j] > Key)
	2	0 0
	arr[j+1] = ar $j = j-1;$	s Cj.J;
	? /2/-1;	
	arr[j+1] = Key	200 NO
	?	Ch III
	Complenity Analysis:	
	70 01234	Arion I
	E1 1 1 2 x x x y y y	1 1 1 1 1
	C 3 1 2 3	The state of the s
	0 234	
	Key 2 3 4 Comp 1 1 1	l sides !
5	Comp 111	*
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	Date Date					
A. A. Carrier	2/2/2016					
	7(n)= 2+2+2-n=2(n)					
	time Complenity = O(n)					
	. V Produce					
	The complenity of the hollowing algorithm has been to cluved by					
	been reduced by					
(Binary Search:					
ž. į	Binary Search: By using a sorted array & using binary search can reduced she complexity to (O(n))					
	search ion heaved she wighting					
	(O(n))					
(2)	By using linked list:					
ं	By Owing linked list , the Complexity of insertion becomes (onet & the orderall complexity becomes O(n)					
	insertion becomes const & the overall					
	Complerizy becomes O(n)					
0	1002					
Que						
(d)	Dik Col ale of the					
3	Duik Sort algorishm:					
	Julk cost (are, P, 9)					
	5 - 11417 22 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124 - 124					
	1 (P< 9)					
	9 h= Partision (ass, P, q) Quick Sort (ass, P, r-1)					
	Quick Sort (arr, P, 4-1)					
4. 3.	Orich-sort (ort, 4199)					
	(
	Partion (out, P, 9)					
	5 (Oct , 1 , 9)					
	n = arr[q]					
	11- ur (4)					

					Page No.
	id; total);	2,14.6	TX Z	War and the second	Date
	12 P-1			No.	
()	for Giz P	to 9-1		4	- WET!
	1/1 (arr EjJe	(n)		* 1.21 2
	Su	saff ars	CiT, au	Ci+U)	13-15
	14.	i+1]27	0')	
7			<u> </u>		7
	return	(H);			
	3			, ,	
	11				
	The Complenie	ry of	best Co	ue of	quick sort
	13' (T(n)2	O(nlo	gn)	quick sort
				<i>f</i>	
	The Complex	u'n g	y wor	ut Case	of quick
	cort is	7/1	0(03)		
	35 3 3 1 3	7(n) 2 ($J(\gamma t^{-1})$		7.0
	0/11/10/1	*		30	
	Bubble Sort	_			
		· (int	inn	1 < n-1	
		r (int	i20;	i < n-1;	(++)
		5			
		5			-i j++)
		for Lint	j20 j	j< n-1	-i ; j++)
		for Lint	jz 0 j Cau [j]	j< n-1 > Cur 1	-i ; j++) j+1]
		for Lint	jz 0 j Cau [j]	j< n-1 > Cur 1	-i ; j++) j+1]
		for Lint	jz 0 j Cau [j]	j< n-1 > Cur 1	-i ; j++) j+1]
		for Lint	jz 0; (ass [j] semp z Ous [j]	j< n-1 > au 1 au 1	-i j++) j+1]
		for Lint	jz 0; (ass [j] semp z Ous [j]	j< n-1 > au 1 au 1	-i j++) j+1]
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	The comple	ning of	best Case	of bubble
	sort is	7(11)2	$O(n^2)$	
				ase of bubble
	The comple		worst (75 0
	- North	1(n)=01	n/)	
	Conflerity a	mariles		
	110	rk Gord	Insertion	Bubble
Merce work)	7 - 1	$n) = O(n^2)$	$7(n) \cdot O(n^2)$	$\frac{7(n)20(n^2)}{(n^2)}$
	(n)-anlon)	(nlogn)	7(n)20(n)	7(n)=0(n1)
Um	0	0		