Enseall mo. 2018172.

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Data Structure Tutorial 2

Qı	
(i·)	O(n) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	lets take the name of n=16 in first for loop second loop dependents on the name of i
	second loop dependents on the name of i
	lo execution goes like.
λ : :	The state of the s
	16
	16/2
	812 4
	4/2
	2/2
	$Jime(n) = O(n+n) + n + \cdots + 1$
	2 4
	= o(n)
(ii)	Here first loop runs on times and the inner
-	es runs logn times
	∴ O(nlogn)
(iii)	Here the liest loop on times and the enmer loop
	Here the first loop on times and the enmer loop run's only one time because of break statement
	\sim $\mathcal{D}(n)$
(iv)	Here in this case both the loop goes in times
	$\therefore O(n^2)$

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(V·)	there the outer it loop will sum mono of times and both the inmer loops i e john and kon loop sum logn times
	$\therefore O(n \log^2 n)$
(vi)	This piece of code is an bubble sout algorithm
	$\therefore O(\mathfrak{h}^2)$
(vii)	Here in for loop can sum me times In for loop can sum in times Kin for loop can sum in times
	·: O (no logn)
(viii)	This is a code for selection bout
	O(n)2
	Constraint in the second secon
Q ₂ :	squt (logn)
	log_logn Joy Legin nulogn
	$(3l_2)^n$ $(n+1)!$