7/22/21	Brajapati Yash P 20162121023				
(1)	Algorithm for Quick Sort?				
	Quick Sort Carr [], stept, end)				
	Step 1 = 9 (start < end)				
admit ne statute telefon siste desta desta desta desta desta de la companya de la companya de la companya de l	step 2 = set p= Partition (arr, sterrt, end)				
	Step 3 = Quick Sort (am, Stust, p-1)				
	Step 4 = Quick Sout (am, p+1, end)				
	end 1/6				
large for displaying and a second second	Partition (arr [], stust, end)				
	step 1 = set pivot = arr [start]				
an (IIII Calvaniana) (III) in the calvanda dancii in the anteriori (III (III)) in the calvaniani (III) (III)	step 2 = set i = stept +1; and j = end;				
	Step 3 = do il (icj)				
	step 4= if (am (i) Z= pivol)				
	then itt;				
	sty s = if (arr[j] > pivot)				
in discharge die von der verweiter von der verbeiter der verbeiter der verbeiter der verbeiter der verbeiter d	then				
	Step 6 = 11 (14j)				
	then swap (COB) (077 (13) (077 (13)				
	Step 6 = if (i <j) (arr="" 7="swap" [i],="" [j])="" [j])<="" [stert],="" arr="" step="" swap="" th="" then=""></j)>				
	Step 8 = geturn j.				
	0'				
	According to given array,				
	Tys 34 23 68 91 12				
	195 39 25 68 11				
	@s pivot i				
	Cos Pivol				
	Pass 1: 45 34 23 68 91 121				
	Pivot				
	bl. sol				

(BDA)

Brajapati Yash. P. 20162121023 83 12 34 Pass 3:the same with the

Pragapati Yash P 20162121023

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4 2 11 30 The elements of the tree from top, left and right are !-14-12-11-3-11-10-7-30-940 (A) Inorder Traversal :x Topical TAD I St willows Step 1:- visit all nodes in left Step 2:- vicit root nodes step 3:- visit 2000 conodes in right. : Inorder = 1,2,3,14,7,10, 6,40,30, 811,14 (B) Pre-order Traversal:-Step 1:- visit swot Step 2:- visit left nodes etep 2: - visit right a nodes. 1. Bueorder = 14,2,1,3,11,10,7,30,40

	~	^
	00	A
. (BD	m)

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1	and the second s	-

Brajapati Yersh. P. 20162121023.

(C) Post-order Traversal:

Step 1:- e visit all left too nodes

Step 2: - West all right nodes

Step 3: Visit root

-: Post order = 1,3,2,7,10,40,30,11,14

A3 Street 10 08 00 10 010 11 - 00 - 1 1 00 - 01 Keys = (70,45, 23, 56, 32, 26, 35, 66, 54, 91)

in I rote a cost took this in

hash function => h(k) = k mod 10

1 of men to the file of the h (70) = 70 mod 10 = 0 \rightarrow

h (45) = 45 mod 10 = 5

 $h(23) = 23 \mod 10 = 3$

lobouted in h(56) = 56 mod 10 = 6

h(32) = 32 mod 10 = 2+101

h(26)= 26 mod 10 = 6

as 10 % occupied by 56,

we use linear probing.

(h(k)+i) mod m.

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)	Prajapati Yash. P. 201621210	2.2	Page	
	निया किया निर्मा निर्मा		The second secon	
	.: h(k,i)= (h(k)+i) m	od 10.	00611	
	The second secon			
	i=0 to 9. (size of ho	1 4		
	Now, (6+1) mod 10		Anno 1860 (Sain-Airean Sainte Saideachaidh Ann Ann Airean Ann Ann Ann Ann Ann Ann Ann Ann Ann A	
	= 7 mod 10	7)	
	h(26)= 7	- Beausignature (in discussion terrestricularisation and meteor-de-	Минантобокилентикальный инфилармации и посытия В	
	71(30)	And the second s	1	
=	hc35) = 35 mod 10	1.5	è	
	= 5	.12	φ.	
	but 5 % already occup	red b	y 45	
	-; &h(k,i) = (h(k)+i)	mool.	(6)	
	h(5,1) = 5+1 mod 1	6		
	= 6 mod 10			
	=6. Hie a	dso o	ccupied.	
	-, h(5,2)=(S+2) mod 10	0 50	- Handle	1
	- 7 mod 10 =	7.	A le also	occupied
	:, h(S,3) = 8 mod 10	? whoh	2,1	
	h(35)= 8.	abor	frield	
	ָ וְצִיּיֹיִ יִּי		1-11/1-	
4	h(66) = 66 mod 10 = 6			
	Now as we know, 6,	7,8	are occu	pied
	-, h(6,3) = (6+3) mod 10	= 9	· in mile	
-	h(54) = 54 mod 10 = 4.	7	•	
	,		· -	
-)	h(91) = 191 mod 10,=1	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	ø*	
	1			B. V.
	PTO 11 months to the	(**************************************	PTO	

(BDA) Brojapati Yash P. 20162121023 Hash table is as follows? key value 70 91 32 23 45 56 - 26 35 66. A 2 struct node int data; of some 2 2 12 3 struct node * prev; ruct node * next; Struct mode * start; void meent (node consent, int poe, int value ? (cpos <1 11 pos > size +1).

4 print (" Invalid Position");

(BDA) Brajapoti Yash. P. 120162121023 else { white Epos och 100ps 0 = a 20 to mode * Anne mode od ateig toup 00 not - @ ament; * Coloco new_node = (struct node*) malloc (size of (struct node); new_node > next = temp - next; (temp -> tonext) -> prev = new_node; or temp? next = new-node; new-node -> prev = temp; Table: -Prev Next Data 1007 1002 1001 1004 1001 1002 1003 1005 53 1002 1004 16 1004 1006 1005 1005 1007 1006 71 1006 1001 25 1007