(Gaathi) Date_/_/_ Hashing. have key value pairs.

Le con do all operations search, ingent, deleter

all in Big Oci average. Hashing Not Use Fox ---1) Finding closect value 3 sorted data 3) Prefix searchings Application of 6 bashing: - After Arsay Hashing is seand most used dark structure.
- Coinpliment cache.
- Database indexing. Use keye as indexes in Array, & do insert, delde & Search in O(i) because Array can Access Roundernly inder. For hoshing we have to create Hash functions should Achive. O should always map large key to same small knews. @ shad generate value from 1 to m-1. @ should be fast, o(i) for integer & o(len) for string. @ should Uniformly distribute large keys into Hush table. slots. -7 At the time of insextion you have to check this element is present in Hash or not daplicates not allowed in Hosh deble. Page No.

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4,	Date	//	Lashina .						
V	Two	method	le fa Avoid	colision.					
Sec. (Stid.	AGO	when Town laker co	mes to same place the	en				
#	Cha	iniva	it create separat	node for that value	R				
delede	Two methods to Avoid Colision. A Gluben Two value comes to same place then Chaining: it create separate node for that value & Join to that index).								
	hach (key) = kp. 17 (Remarker of 7)								
	hash (key) = key % 7 (Remarder of 7)								
	hash function kp. = 50 21 58 17 15, 49, 56, 22,28, 25								
	hash function key = 50, 21, 58, 17, 15, 49, 56, 22, 23, 25 input key 7. 7 = 1 0 2 3 1 0 0 1 2 4 Here Divises 18 7 then remainded cannot go above 6								
	Array	Linke A	11st -> node	(8) Professor					
	. 7								
	10	- 21	> 43 > 5	Application (8)					
	1	50		2					
Lucidia	2	58 m		- Alder Marrier					
Bucket.	3	17		transford of					
30000	4	25		· Edderso indering.					
	5								
	6			- Hashing	\$				
Later Fre	Too of	Hash Table (Array of Linker	1 (1st Headers).					
			is because Array						
		Search (1	5) -> Tour						
en ducto.	in Brish	search ((8) - False.	For boshing we					
	sod line	to some on	one long key	a should always					
				Eshad generate.					
. Grains	200			& should be the					
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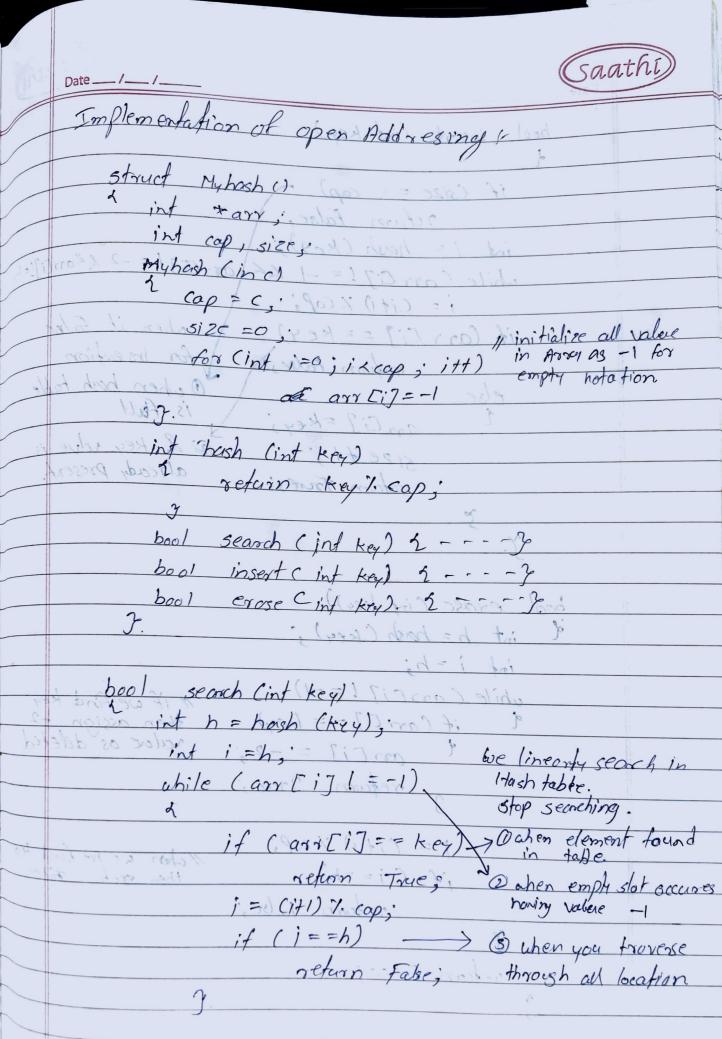
			Caa	thi)
-	Date / /		Color	
	Implementation of chaining			
	Ganing	1110	1	Po
	struct My Hash. 2 int Bucket; list < int > *table; // creating of to array My Hash (int b) // triticlis	S C DOD'Y C		1
19	int Bucket:	: 64 3	1	bucket
	list Lints *table. Il creating 1	Pointer	1	1
	MyHash Cint b) & in the line			1
	MyHash (int b) // Initialize Bucket = b; by con	structor of str	ucture,	
	cupie - now list 1:150	7 .1 2 2 46	A.	
0	world insent and market	Jan F Kron	CHOL	4
4	world insert (int key) 1 -	Kis. Yours	ilvior	7 -
4	search (int key) 1.		1	
7	void remove (int key) 1	in- 01.13. 1	O I.	hR
	J. 3 16 20 18 18 18 18 18 18 18 18 18 18 18 18 18	skin accin	11-7	
1	am! Lineag Search for E. New	Linea De		
	Void insert (int keu)			
	infi = key % Bucket,			
	table Eij. & Pushback Ckey),			
	Y	63	5	
	·	50		
9 10	void remove (int key)	51	3	
	void remove (int key)	31	3	
	table Ci]. remove (key);	93	(4-)	
	11 Chen 40 contra water at loss of 3/ch 13	3.1	5	
-	then eggin search from first in	e, e,	emparis 1	
4	bool search (int key)			<u> </u>
	1		ş	
	int i = key 1. Bucket,			
	for (auto 2: table [i])			
-	if (2 = = key)			
-	refurn True;			

refurn False,

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Date ___ /__ /_ aplementation of chaining Open Addressing: no of start in Hash table ? No. of News to be inserted hash (Kely) = key 1. 7(d bid don't will key = 50, 51, 49, 16, 36, 15, 19. key 7.9 = 1. 2. 0.A HOHere 7 keys then we have to create Array of minimum size 7. Cont to traccio bion boal of search (ist ke) 1 -- . } 8#10 If uses linear probing to enter value when colision occures. Linear probing! Linear Search for & Next empty slot in florag when there 13 x collision tuble Cil. alubback Ckers. 0 49 50 51 11 Hene 16 1.7 18 2 but there collision occures then 3 16 value is storied in next empty slot. 56 11 summer for 56 5 86 7 7 =0. 5 15 11 when yo enter value a last slot is full 6 19. then again search from first in circular manney and 1; = key 1 Bucket. to and a si table Cil)





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bool insert (intikeg) 4 if Csize = = cap) - don't touche return False; int i = howh (key): while (ary Ci7! = -1 && ary Ci7 1= -2 & Ram Ci]!= key i = Citi) 1. cap;) if (arr [i] == key) chen it False a le son di (ti refun False) for insertion Owhen hosh table else 1-= [i] mo Do 1 gar Ci] = Key; 512e ft; til De & key robre is retain True, already present. book search (ind key) & -- . Ye boot insert chat keel 2 ----bool exage (inf key)). d int h = hash (key); int i=h; while (arrEi] (==1) I if we find key if (arr [i] = = key) then assign -2

arr [i] = -2; value as deleted be linearly come is Haish table. or return True, tound je Citil 1/ cap; 11 when we not found key if ((= = = h) then oretion Fulse return fale, reform False;