## 11/10/20 ADS - LAB

Abhishiked IBM18 (3004

## B-Tree Insertion

- 1 Initialize 21 as Scoot
- 1 Check whether 21 is leaf or not, if not then
  - (2.1) Find the child of x that is going to be to to real seed next. (say, y)
  - 2.2) If y not full, change n to point to y
  - (2-3) I y is full, split it, and change If is smaller than mid key in y, then set xe as the first part of y. Else second past of y. More Key y to its parent ic.
- 3 # I x is leaf, then 200ps in step @ 8hops. It must have space for I entra key from the parent on as we have been splitting all the nodes in advance. So, insert & to x.

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Algorithm Chive play the could abolds/wall BInsedian (T, K) [17] (sa) . La ] (sa) or root [T] L- EUSA 1 N[2] = SF-I 1-1011=10 3 = Allocate/Node () S=[I] tope LE Stoph = LESignal lead [S] = FAISE The first first ncs] <-0 Jal 1-683 CI[8] <- or BTreeSplitChild (s, 1, 2) BInee Inscot NonFull (s, 4) 11 of 11-Endra = 6 006 else BTree Inschnonfoll (or, 10) Blace Engerthan Full (x, x) S- [A] Dio i= now i (lea) [x]) of Light : 1 al Cohile iz1 and K < key i[k]

\*Key-i+1 [n] = tey [n] 1=1-1 Ly Topad - [16] in sid keyi + 1 [n] = K Dr. Color + Cr. for else while i>1 and Kckeyila +=1-1 1=1-1 1=1+1 in CitaD==2t-1 BToceSplitChild (M, i, ci[4]) i) (K Ent; Keyi(N)) Afor Pach BTace NonFull (ci [a], K) BTree Split Child (mi)

Bloce Split Child (Misy) ( it It ) orderent Z= Allocate Node () leaf[] = leaf[y] [T] hear 1 1 1 - Unlar nt=1=1-1 و بدارا آرای دی Jos j=1 ho t-1 Keyj[z] = Keyj+t[y] alate la lad i) not leaf (y) 0-2 [3]7 der j=1 ht CJ[2]= Sj+ t[y] 32-2 6 120 nty]=t-1 Dollar of the Color of the Joo j=n[n]+1 b i+1 Mitailian Doll 3/9 पुनामि = धुमि ( it is ) Ity Takithan a Boat ( cifl[n]=Z Jor j=n[n] to i 600 1 1 2/1400 Keyj +1[n] = Keyj[n] Ed High Keyi [n] = Keyt[y] Ma Collation n[x]=n[x]+1 Ciclipanson box Los shows of (-left telet Blace Epit Out (20) is cited) (CO)(30) (He8 x) (1) -(ivo) by 10/16/2006/2