Rutuzeut Ritik Rout 113M18CS151 28/10/20

Insertion!-

insert (node, compose value)

locate a leaf to put value in it

if leaf is a 2 node, make it a 3 node
insearting the value approprieately

if leaf is a 3 node, split the node

Split (node 10)

if N is root

make middle shild into a 2 node

make small & large key into 2 node

Reduce children

else N has a parent P-> more middle key to P make small and large children into a 2 node Reducing children.

insert (a, r) &

if (r consists of a single leaf labeled b)

create a new node root r

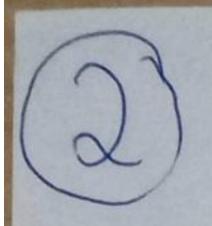
create a new leaf v labeled a

make l&v children of r'

update L&M for r'

else Set f to search (a, r) create a new haf I labeled a

brasz.



if f has 2 children insert I into proper position update L & H

create a transitory node true at f Add child (t)

Addchild (v) &

create new node v'
move 2 right most children of v to v'
if (v has no parent)

make make most of

make new root r'
make v: left child & v': right child
update her & & H

else

let f be parent of v make v'child of financiately to right of v if f now has My children Addchild (+)

update Land H.

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delete () {

let f be parent of node just deleted while (f is an illegal interior node) {

if (f has no parent)

make single child of f. new node delete f.

Set of to the root

else

let g be parent of f

if Cone of t's silding is a 3 node)

more one child from 3-node into

t, update kiet ke everywhere

else

give t's remaining child to one t's

sibling

Sibling delete f

update kr & k2 everywhere 1 set f to g

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