Chandan A.M CSO25

DATE | PAGE | 18/11/20 7) Red Black Boo Instrion: void RBGoo: inset (int Xdata) { Note xpt = new Mode (dots); fix - usolation (root, pt); 1/857 insertion RB Tree: - for volation Mode * A Prost, Mak * 1pt) { Node * favorit pt 2 NULLE Node * grand parent pt = NULL; while (cpt!=root) &2 (pt -> color!=BLACK) &2 pt-) farent -> color == RED) { parent pt = pt -> parent; grand-parent pt = pt - parent -> parent -> parent -

if (pount-pt zz grand poront pt > left) &

Mode + uncle pt = as gland parent pt + right

if (parent pt = grand_parent pt -> left) { Node * unclespt! = NULL 88 unde-pt-160lor=2 RED Shand-perent pt -> volor = RED; parent pt - ider = BLACK; unde-pt -) color = BLACK; pt zgrand parent pt; else 34 (pt = 2 Parent-pt - 5 right) { notate left (root, parent pt); pt = perent pt; farent pt = pt - parent; rotate Right & root grand parent pt).
Invap Gerent-pt-schor grand-parent pt 2 pt = parent pt;

Mode & uncle pt = grand parout pt > left if (cuncle pt LZNULL) & & (unde pt- volor 22 PED)) { grand parents pt > lder = RED; parent_pt_) chor = BLACK; unde jet-) color = BLACK) 2 pt = grand-fasent-pt; if (ptzz parent-pt -) left) { relate right (rost, Resent pt) pt = Parent pt;

perent pt = pt -> parent; rotate left (root ; grandpant) Iswap [prent pt > where et = Revent pt; root -> color = BLACK;