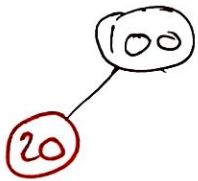# Red Black Tree
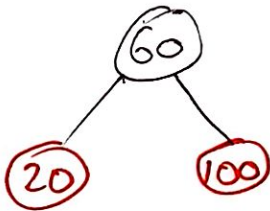## (OUTPLAY)

Bryon Tamin

NO. 3. RBT

1. Insert 100

1. insert 100 at root node

2. because it is root node color it black.
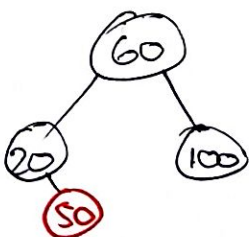
2. Insert 20.

1. insert 20 as 100 left child. because 20 < 100.
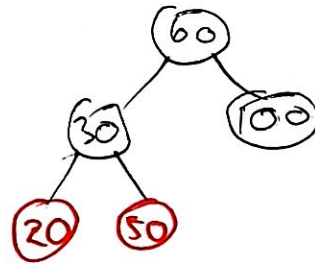
2. color it red.

3. Insert 60

1. Insert 60 as 20's right child.

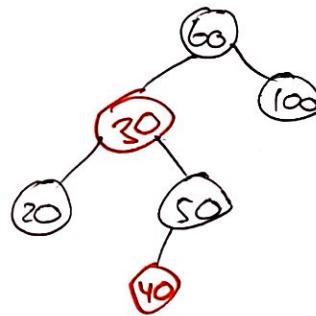2. left - right rotation.

3. recolor.

4. Insert 50

1. Insert 50 as 20's right child

2. recolor 50's parent black and grandparent red.

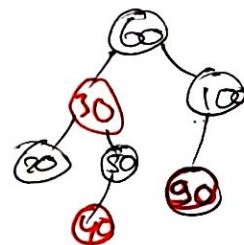3. 60's is a root so it goes block again

5. Insert 30.

1. insert 30 as 50's left child.

2. 2 red in a row ~~to use~~

3. right left rotation.

4. recolor.
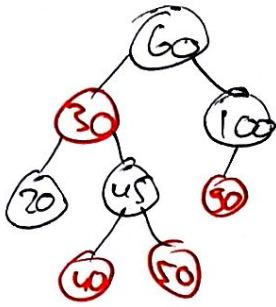
6. Insert 40.

1. Insert 40 as 50's left child.

2. recolor 40's parents black and grandparent red.
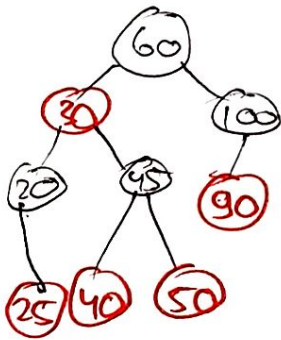
7. Insert 90.

1. Insert 90 as 100's left child.
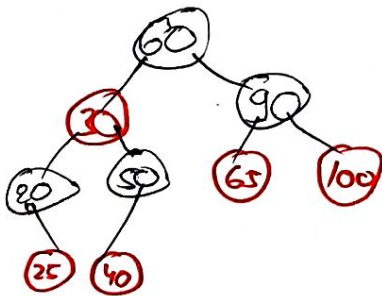
8. Insert 45

1. Insert 45 as 40 right child.

2. red 2times.

3. left right rotation

4. recolor.

9. Insert 25.

1. Insert 25 as 20's right child.

10. Insert 65

1. insert 65 as 90's left child.

2. right rotation.

3. recolor.