Task Eleven.

Target:

- Study tree.
- Implement Some methods in tree class , other methods will cover in next session.

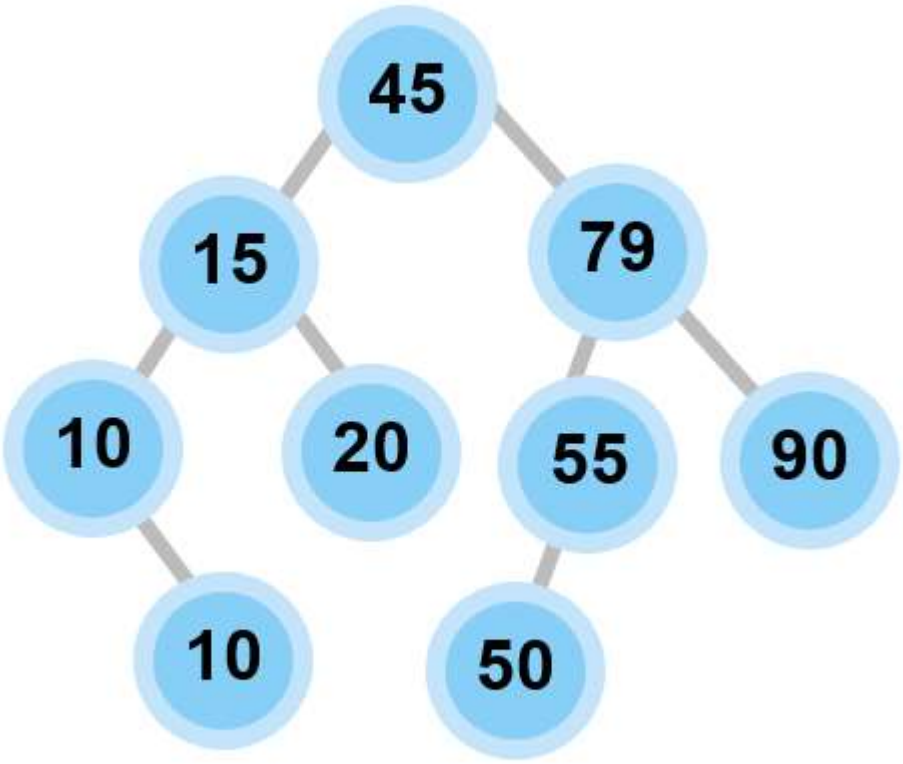
Resources:

- This is Recursion Slide: Link
- Session link: link.

Task:

First part : Please solve these problems using pen and paper or in a Word document, whichever you prefer. Draw the tree or write the output as shown in the examples in the Session Folder.

1) **A) Traverse this following tree using all the traversal algorithms you learned.**



B) for the last tree write (which element is siblings , write all leaves , how many levels in this tree) what kind of this tree ?

2) Add the following numbers to a binary search tree. Draw the final tree after add this elements.

a) [25,30,27,20,35,40,41,28,26,28,15,22,21,16,10,25]

b) [1 , 4 , 5 ,7 , 8 , 9 , 10, 11] , in this tree do you observe any patterns or anomalies? If so, please describe them.

Second part : Implement tree with this methods

- Insert(value) : add value to the tree.
- Find(value) : return true if value exist.
- Method that print items in (Preorder Traverse).
- Method that print items in (in order Traverse).
- Method that print items in (post order Traverse).
- Method that print all items in the tree in descending order.
- Max() : return the max element in the tree.
- Min: return the min element in the tree.

Deadline:

07/03/2024 at 11:59 PM