13-2 BINARY TREES IMPLEMENTATION
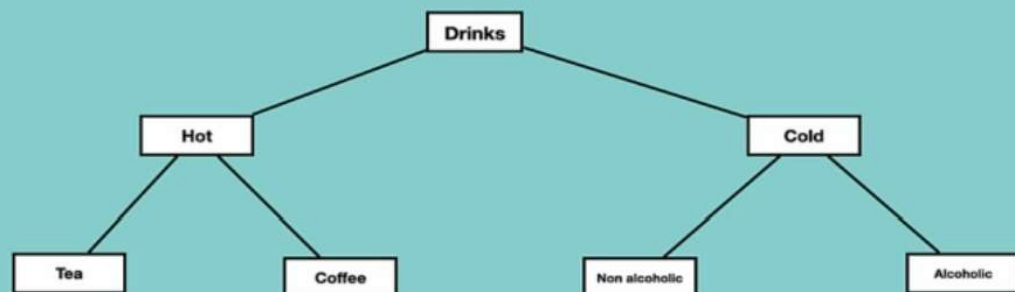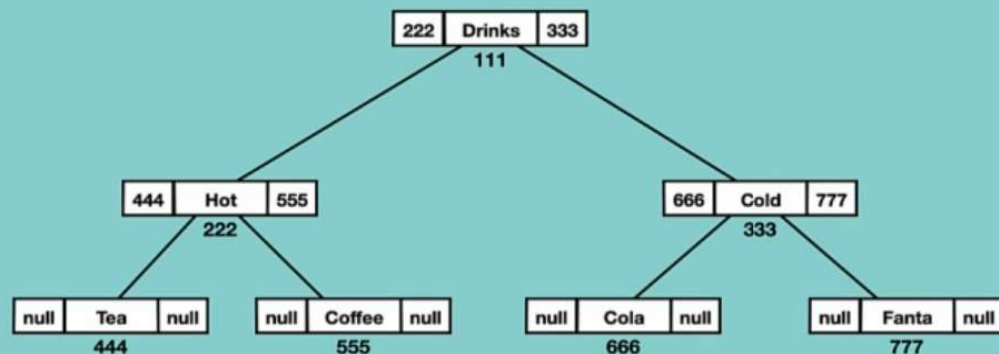
Saturday, June 4, 2022   11:57 AM

Binary Tree

— Linked List
— Python List (array)

EACH NODE HAS TREE PARAMETERS:

- DATA
- LEFT CHILD
- RIGHT CHILD

AT THE LEAF LEVEL THE NODES DON'T HAVE REFERENCE BECAUSE THERE ARE NO LEFT OR RIGHT CHILDREN AND CONSEQUENTLY ARE SET TO NULL

Python List

Left child = cell[2x] $\longrightarrow$ x = 1 , cell[2x1=2]

Right child = cell[2x+1] $\longrightarrow$ x = 1 , cell[2x1+1=3]

NOTE THAT FOR CONVENIENCE WE LEAVE THE FIRST CELL EMPTY .

Left child = cell[2x] $\longrightarrow$ x = 2, cell[2x2=4]

Right child = cell[2x+1] $\longrightarrow$ x = 2, cell[2x2+1=5]

Left child = cell[2x] $\longrightarrow$ x = 3, cell[2x3=6]

Right child = cell[2x+1] $\longrightarrow$ x = 3, cell[2x3+1=7]