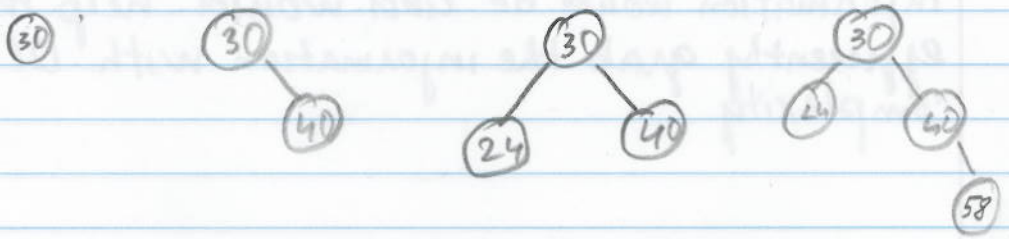
Lam Dang

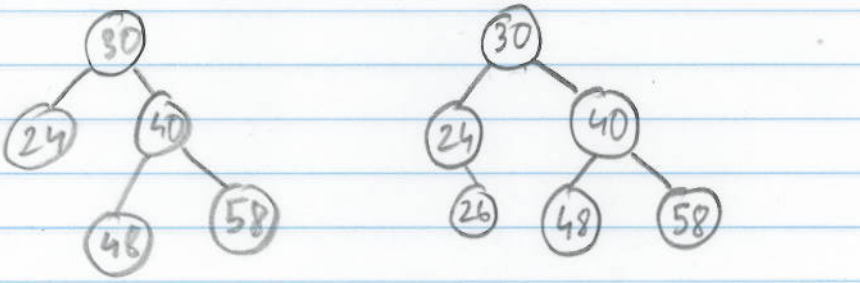
Part 1.

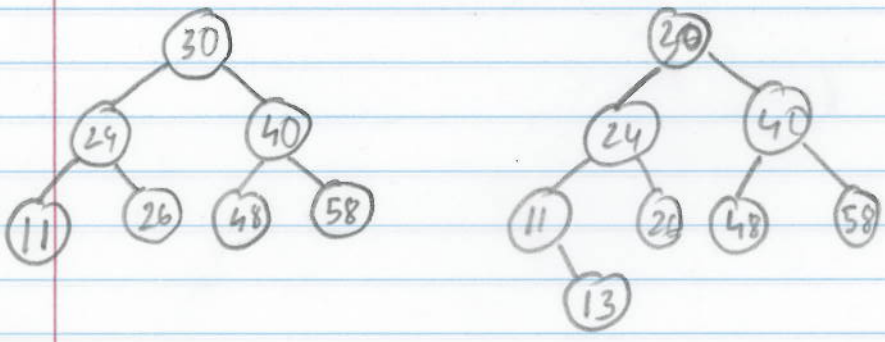
#1a.

Binary Seach Tree's operations perform with O(log n) time complexity. This make the data structure perform search, insert, delete very efficiently, which results in an effective map.

#1b







#3b.

Using TreeMap as a Dictionary

- From a st. You encode a string into a unique number and insert into the TreeMap along with the value

I use this application for my guest management software, which take a name and a status as key-val. The name will be encoded into their ASCII equivalent and ~~insert~~ use it as the key to insert into the TreeMap. The length of the name and the ascii code equivalents of the name will determine where node containing the information would be and would help the software efficiently grab the information with O(log n) time complexity