

BST Level

We have a set which is implemented from binary search tree. We want to create a new method so that this method will return all elements in the binary search tree at a specific level.

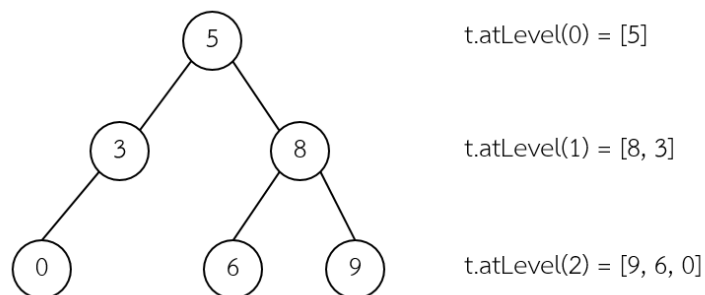
We define that the node is in level k if and only if that node is far away from root node for k links. From this definition, the root node will be in level 0 and the children of the root node are in level 1.

In class **BST**, implement method:

```
public ArrayList<Integer> atLevel(int k)
```

This method returns an array of all elements in level k of the binary search tree. The element in the array must be arranged in descending order. It is possible that k will specify the level that does not have any element, return empty array for this case.

For example, the following binary search tree should return the following arrays when calling the methods as shown in the figure.



Guarantee that k is between 0 and 100 (inclusive).

Limitation

- You should not create new BST.