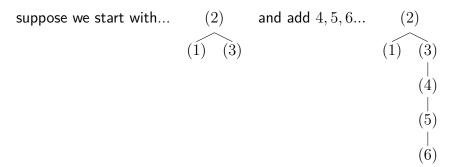
## CSC263 - Week 3, Lecture 1

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## Monday, January 22, 2018

ADT	Operations	Data Structure
Diction	ary Insert, Delete, Searc	h BST Balanced Trees { 2-3 trees, B-trees, red-black trees, AVL trees }

## Problems with BSTs...



Unbalanced trees such as the one above results in height  $\in \Theta(n)$ , ops  $\in \Theta(n)$ . Today we will explore a new data structure, balanced trees. First, some definitions.

- Height(v): # of edges on the longest path from node v to a leaf
- BalanceFactor(v): Height(v.rightSubTree) Height(v.leftSubTree)

**AVL**