

Outline

- Quickly go over a priority queue
- Introduce the binary tree
- Basic terminology for trees
 - Leaf: tree node with no children
 - Root: node with no parent
 - Level: formed by nodes with the same depth
 - Height (of the tree): the largest depth formed by a node in the tree
 - Full binary tree: every node has zero or 2 children
- Use cases for trees
 - Expression grouping, e.g. $(3 + 4) * 2$
- Introduce the binary search tree
 - What are the problems with binary search in an array?
- **Assignment**: solve some exercises using trees
 - Invert a binary tree
 - Find the maximum depth (height) of a binary tree

Resources

- [Binary tree - Wikipedia](#)
- [Binary search tree - Wikipedia](#)