Foundations of Computer Science

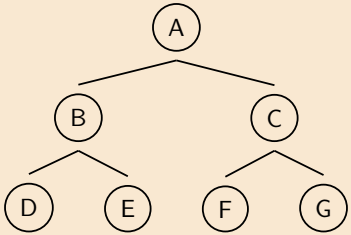
Tree traversals

Dr. Robert Harle & Dr. Jeremy Yallop

2020–2021

Tree traversal refers to visiting the nodes of each tree in a well-defined order.

preorder	visits the label first	(ABDECFG)
inorder	visits the label midway	(DBEAFCG)
postorder	visits the label last	(DEBFGCA)



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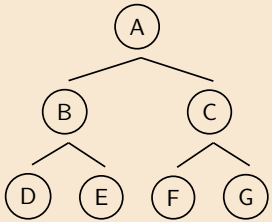

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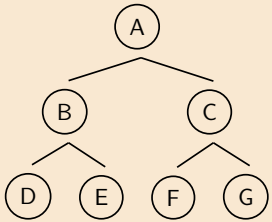

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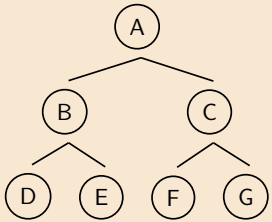

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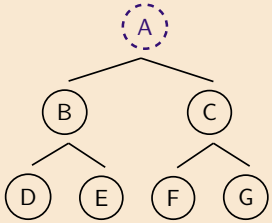

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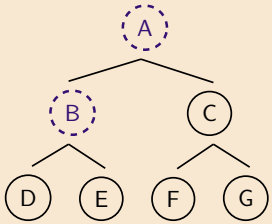

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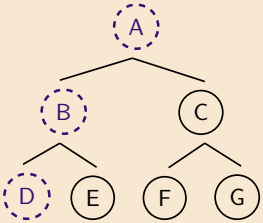

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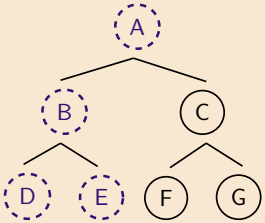

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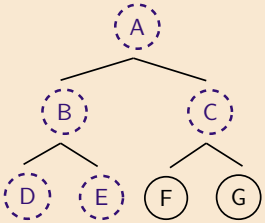

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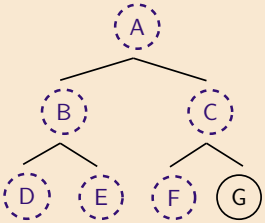

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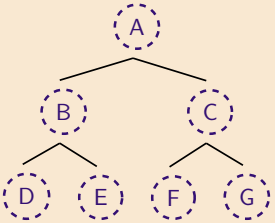

inorder visits the label midway (DBEAFCG)

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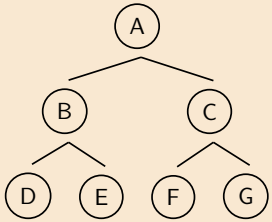

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Also imaginatively known as a treesort.

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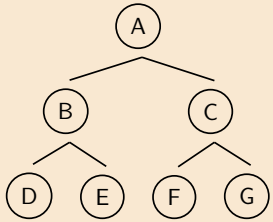

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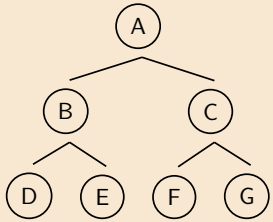

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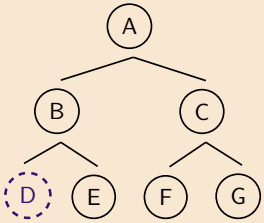

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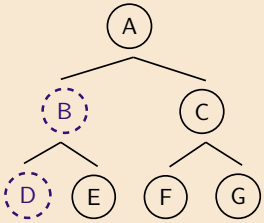

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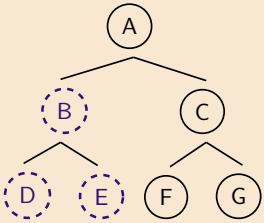

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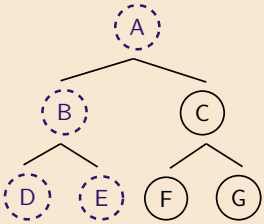

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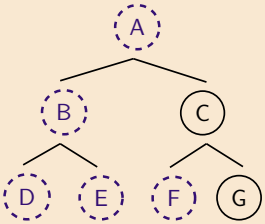

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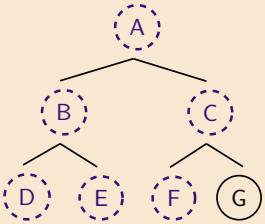

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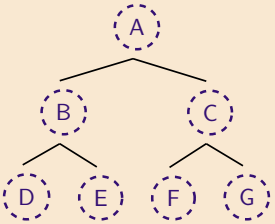

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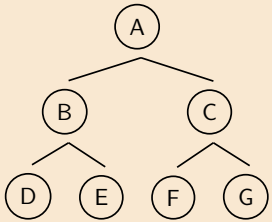

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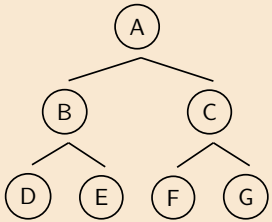

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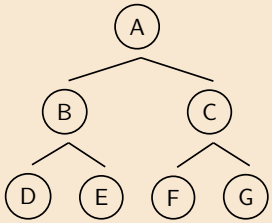

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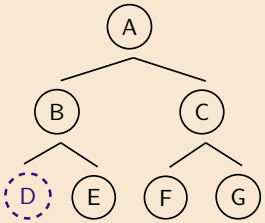

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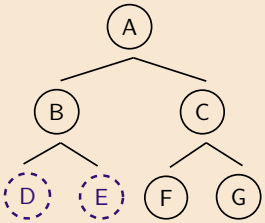

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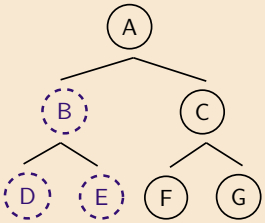

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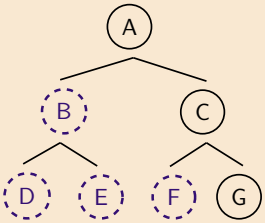

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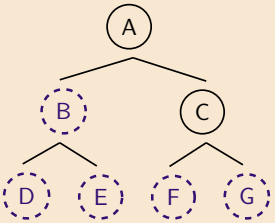

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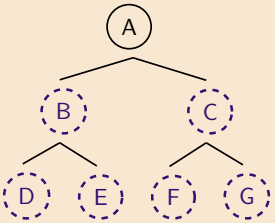

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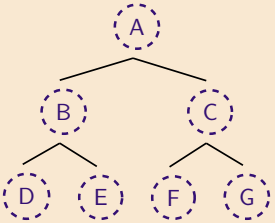

Tree traversal refers to visiting the nodes of each tree in a well-defined order.

preorder, inorder and postorder are **depth-first** traversal algorithms.

The other possibility is **breadth-first** by going across the levels of the tree.