16.6 Summary

Abstract data types (ADTs) are defined in terms of operations, not implementation.Several useful ADTs:

- Disjoint Sets, Map, Set, List.
- Java provides Map, Set, List interfaces, along with several implementations.

We've seen two ways to implement a Set (or Map):

- ArraySet: $\Theta(N)$ operations in the worst case.
- BST: $\Theta(logN)$ operations if tree is balanced.

BST Implementations:

- Search and insert are straightforward (but insert is a little tricky).
- Deletion is more challenging. Typical approach is "Hibbard deletion".

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