

Unordered  
arrays

Ordered  
arrays

Linked lists

# Priority Queues

insert

delMax

findMax

build

performance



definition

shape

Compact  
representation

# Complete Trees

invariant

size

height

definition

buildHeap

representation

# Binary Heaps

swim

sink

Complexity of operations

invariant

buildHeap

sort

linearithmic

# Heap Sort

benefits



Key-value representation

Unordered list

Duplicate keys

Comparable keys

Ordered list

# Symbol Tables

put

get

Complexity of  
operations

delete

contains

Ordered ST

Key-value

representation

# Binary Search Tree

insert

search

shape

invariant



inorder

findMax

# Ordered operations on BST's

postorder

preorder

findMin

floor  
floor

range

rank

Leaf nodes

Nodes with one child

# BST Delete

Inserts/deletes

Nodes with two  
children

tombstones

Height of the tree in random  
inserts and deletes