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Period 2

APCS

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Vocabulary 13

1. (map - hash table) A hash table is a data structure used to implement an associative array, a structure that can map keys to values.
2. (map - queue) You can create a map containing instances of a class that contains a queue.
3. (map - heap) You can create a map of the heap.
4. (map - linked list) Linked list can implement the Map interface in Java.
5. (map - log) It is good practice to keep a log of the runs occurring within a map.
6. (map - tree depth) You can use the map function to apply depth to each Tree.
7. (hash table - queue) The queue and the hash table are very commonly used data structures in computer science.
8. (hash table - heap) Hash tables are arrays that allows for constant access time while heaps are trees that is always descending in value or rank as the level increases.
9. (hash table - linked list) Chained hash tables with linked lists are popular because they require only basic data structures with simple algorithms, and can use simple hash functions that are unsuitable for other methods.
10. (hash table - log) The worst-case time of common hash table operations can be O(log n) rather than O(n).
11. (hash table - tree depth) Hash tables are arrays that allows for constant access time while tree depth is the number of edges from the top node to the tree's root node.
12. (queue - heap) A queue is a particular kind of abstract data type or collection while a heap is a specialized tree-based data structure.
13. (queue - linked list) A queue is a particular kind of abstract data type or collection while a linked list is a data structure consisting of a group of nodes which together represent a sequence.

14. (queue - log) A queue is a particular kind of abstract data type or collection while logging gives you data about what your code is doing.
15. (queue - tree depth) A queue is a particular kind of abstract data type while tree depth is the number of edges from the top node to the tree's root node.
16. (heap - linked list) You can implement a heap using a linked list.
17. (heap - log) A heap with N nodes always has log N height.
18. (heap - tree depth) You can find the tree depth of a binary heap.
19. (linked list - log) Linked lists can be sorted in O(n log n) using mergesort.
20. (linked list - tree depth) You can implement a linked list that contains all the nodes throughout the depth of the tree.
21. (log - tree depth) Any n-vertex forest has tree-depth O(log n).