

Topics List for Final Exam

The final exam will have 6 questions on it; 2 questions will be on the test 1 material, 2 questions will be on test 2 material, and 2 questions on the new material.

- All topics on “Topic list 1”
- All topics on “Topic list 2”
- Maps
 - How to create an empty map.
 - How to iterate through a map.
 - What containsKey(), get(), set(), etc. do on a map
 - Be able to solve a problem using a map.
- Binary Search Trees
 - How are binary search trees defined?
 - What is the binary search tree property?
 - Know how to write a method that inserts a value into a binary search tree, searches for a value, visit the whole tree performing some operation.
- Hash Tables
 - Know what hash tables are
 - Given a hash function and a table, tell which bucket an element will go to.
- Graphs
 - Given a pictorial representation of a graph, be able to write down its adjacency lists representation.
 - Given a pictorial representation of a graph, be able to write down its adjacency matrix representation.
 - Show the order in which nodes are visited in a Depth First Search (DFS)
 - Show the order in which nodes are visited in a Breadth First Search (BFS).