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Overview of Module 2

First of all, congratulations on surviving module 1. We are so glad to see you in module 2. The good news is that after having finished module 1, you should have a very good idea of what algorithms are and have gotten a flavor of many of the analysis we perform to prove correctness and analyze time complexity.

Module 2 will introduce data-structures and specifically learn two very important data-structures: heaps and hashtables.

We will start by studying the heap data structure in great detail. The heap is an important datastructure and there are many important algorithms that will depend on a heap data-structure. We will go over all aspects of heaps and present the important complexity analysis of heap operations such as inserting an element into a heap or deleting an element from a heap.

Next, we will touch upon hashtables at the very end. Hashtables may just be the single most important datastructure in all of programming. They are used in so many applications that is impossible to even begin enumerating them.

Assignments

We will have quizzes following each lesson.

We will also have a programming assignment at the very end based on heaps.



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