

# Lecture #24: Application — Randomly Constructed Binary Search Trees

## What Will Happen During the Lecture

### **Remember... You Had Homework!**

Students were asked to work through the following set of lecture notes before this lecture.

- Lecture Notes — “Randomly Constructed Binary Search Trees”.

As always, you may attend the lecture presentation if you have not worked through this material ahead of time — but it will not be repeated for you, and you might get a little bit lost, during the presentation, if you haven't worked through this.

### **What Will Be Discussed**

The “Quick Sort” algorithm will be discussed and the results from the preparatory reading will be applied to explain the “expected” behaviour of the deterministic version of this algorithm, under an assumption about the the input array that is to be sorted. This will also be applied to analyze the behaviour of a randomized version of this algorithm, when the entries in the input array, that is to be sorted, are distinct.