

In this thesis we study the expected height and some other qualities of the binary search trees. We make the inquiry about the expected height by skewed trees and by the two probably best-known and most widely used variations of the balanced trees, it means the AVL and the red-black trees. In addition to the value of the expected height of the trees we found out the scatter of the tree heights and some other statistics. In this thesis we attach to experimental solution of the problems. We also write down all the theoretical results that were known to us. We focus especially on comparing the measured values with the theoretically counted results. We try to acquire as exact assessment as possible in the case of unexisting theoretical results. Besides we compare the differences between the various trees. We measured speeds of the tree's generation only marginally. We also inquire the dependence on different kinds of enter data within the experiments, such as the sorted data or generated data from various sorts of division. We use the standard statistic methods for the interpretation of the results, especially the method of linear regression.