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CS1332 A4 HW 4

AVL Tree Analysis

1. What conclusions can you make about the difference in efficiency of a plain BST versus the AVL when the data is random prior to entry?
   1. The efficiency between the two is nearly the same.

Regular Tree Add Count: 275

AVL Tree Add Count: 261

Regular Tree Min Count: 4

AVL Tree Min Count: 6

Regular Tree Find Count: 366

AVL Tree Find Count: 335

Regular Tree Height = 8

AVL Tree Height = 6

1. What conclusions can you make about the difference in efficiency of a plain BST versus the AVL when the data is sorted prior to entry?
   1. The efficiency of the AVL tree when pre sorted is much greater than that of the BST.

Regular Tree Add Count: 1225

AVL Tree Add Count: 280

Regular Tree Max Count: 50

AVL Tree Max Count: 7

Regular Tree Find Count: 1248

AVL Tree Find Count: 239

Regular Tree Height = 48

AVL Tree Height = 5