Algorithms Coursework

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February 16, 2013

1 Randomised Algorithms

The below figures indicates the changes in time/number of executions in proportional to the size of the words added into the set for three different randomised algorithms: Skip List, Bloom Filter and Randomised BST. The observed trend for time complexity for Skip List and Bloom Filter all follows the similar pattern, which is predicted to be O(log n)
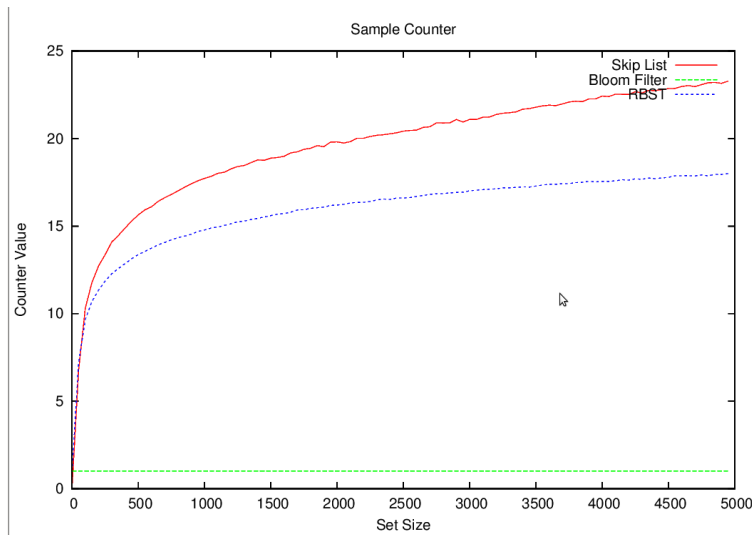
2 Add

Figure 1: addcounter
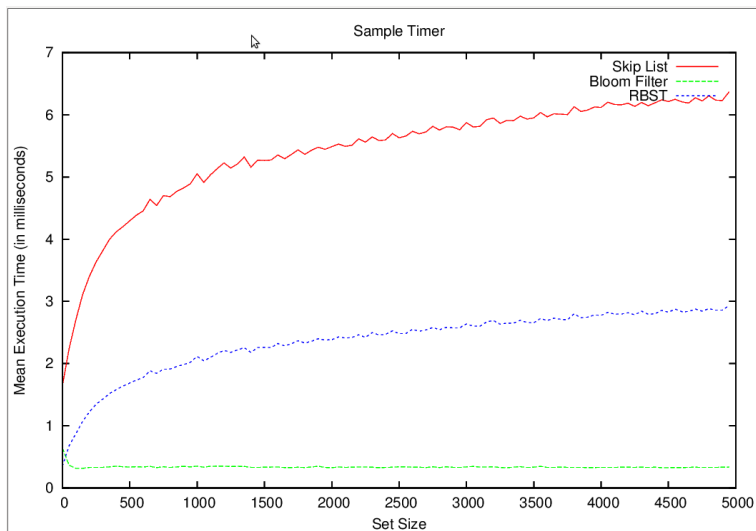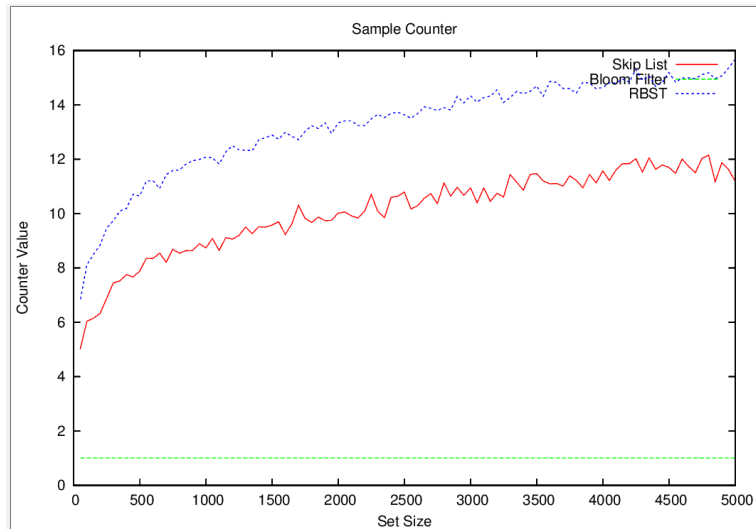
3 Delete

4 Find
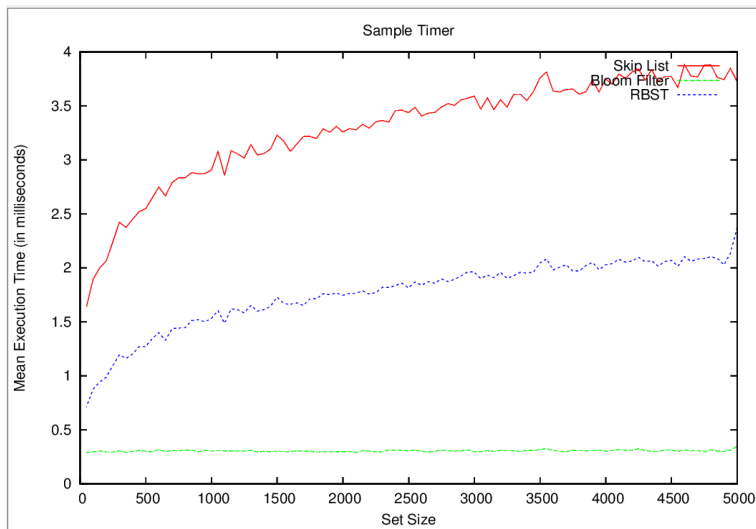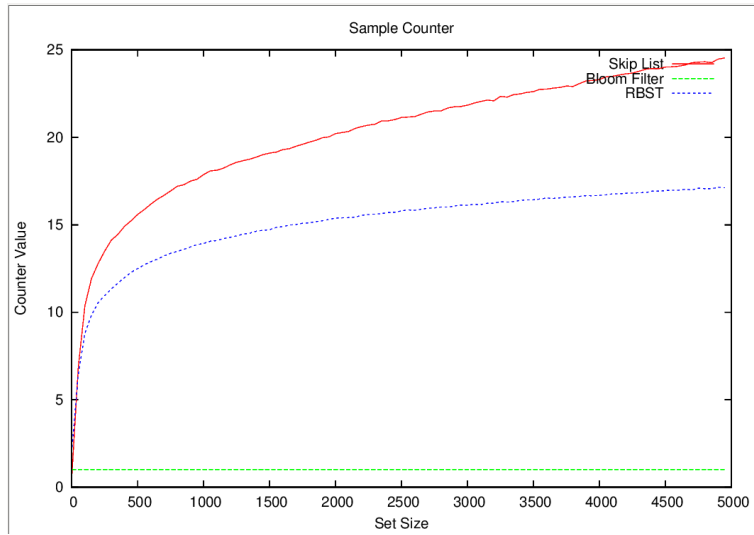
Figure 2: addtimer

Figure 3: delcounter
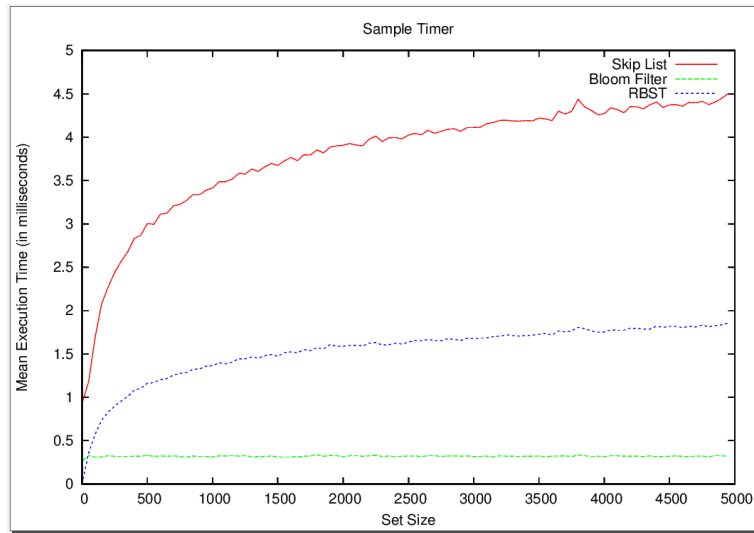

Figure 4: deltimer

2

Figure 5: findcounter

Figure 6: findtimer