**CS 300 Project One: Runtime Analysis**

### **Runtime Analysis**

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| --- | --- | --- | --- |
| Operation | Vector | Hash Table | Binary Search Tree |
| File Read | O(n) | O(n) | O(n) |
| Insert | O(1) | O(1) average, O(n) worst | O(log n) average, O(n) worst |
| Search | O(n) | O(1) average, O(n) worst | O(log n) average, O(n) worst |
| Print (sorted) | O(n log n) | O(n log n) | O(n) (in-order) |
| Space | O(n) | O(n) | O(n) |