

	<u>Array List</u>	<u>Vector</u>	<u>Array</u>
<u>Creation (10 Runs with 671,000,000 elements)</u>	Run 1: 7.196960917s Run 2: 6.936198375s Run 3: 8.983641875s Run 4: 6.769467583s Run 5: 8.942093833s Run 6: 7.645587125s Run 7: 7.089619708s Run 8: 7.309762083s Run 9: 7.310750792s Run 10: 7.286580417s	Run 1: 8.637935167s Run 2: 8.47299425s Run 3: 6.868520625s Run 4: 6.117909625s Run 5: 6.854957583s Run 6: 6.354540625s Run 7: 6.12001975s Run 8: 6.107750958s Run 9: 6.36168025s Run 10: 6.3495805s	Run 1: 76.506127209s Run 2: 77.880181458s Run 3: 84.7087315s Run 4: 84.962491958s Run 5: 67.763356s Run 6: 78.818063833s Run 7: 80.157386s Run 8: 80.14143075s Run 9: 77.91921175s Run 10: 80.635623417s
<u>Creation (Avg over 10 runs)</u>	7.5470662708s	6.824588933299999s	78.9492603875s
<u>Sum (250,000,000 elements)</u>	<u>Array List Sum:</u> 1000027423 <u>Sum Time:</u> 0.133769041s	<u>Vector Sum:</u> 999978207 <u>Sum Time:</u> 2.354658458s	<u>Array Sum:</u> 1000038279 <u>Sum Time:</u> 0.085614209s

From the table above, we can see that the longest creation time on average comes from the array, while the shortest creation time comes from a vector. When summing elements, the fastest time comes from an array, while the longest time comes from a vector.

For a recommendation to designers, it would seem that it depends on the task that needs to be performed. If the goal is to store many elements, then it would seem that a Vector works best. If the goal is to sum elements, it would seem that the use of an Array would be best. However, if the goal is to do both things and more, it would seem that the best overall recommendation is the use of an Array List. This is because the Array List has the best average of the 2 methods.