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Data Structures and Algorithms  
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### ArrayDeque VS ArrayList VS LinkedList

All results are time in milliseconds

Adding to front:

	100,000	200,000	400,000	800,000
LinkedList	13	31	78	141
ArrayDeque	18	78	61	94
ArrayList	14	16	29	210

Adding to back:

	1,000,000	2,000,000	4,000,000	8,000,000
LinkedList	197	369	1202	2983
ArrayDeque	192	250	758	851
ArrayList	337	438	516	1654

Adding to middle:

	25,000	50,000	100,000	200,000
LinkedList	1428	9296	41850	175509
ArrayDeque*	X	X	X	X
ArrayList	83	176	548	2179

\*arrayDeque doesn't add to the middle, excluded from the test.

At the highest trial volumes, the ArrayDeque is supreme at adding to the front and back. Meanwhile, the ArrayList is far and away better at adding to the middle, as compared to the LinkedList. It seems that using the ArrayDeque would be optimal for anything related to a queue or stack operation, and the ArrayList for anything where modifying the inside is necessary.

The LinkedList didn't come in 1st place on any of the operations when working at a high volume, but it was significantly faster than ArrayDeque on the 100,000 and 200,000 trials. It seems the LinkedList will be faster at a lower volume than the ArrayDeque.