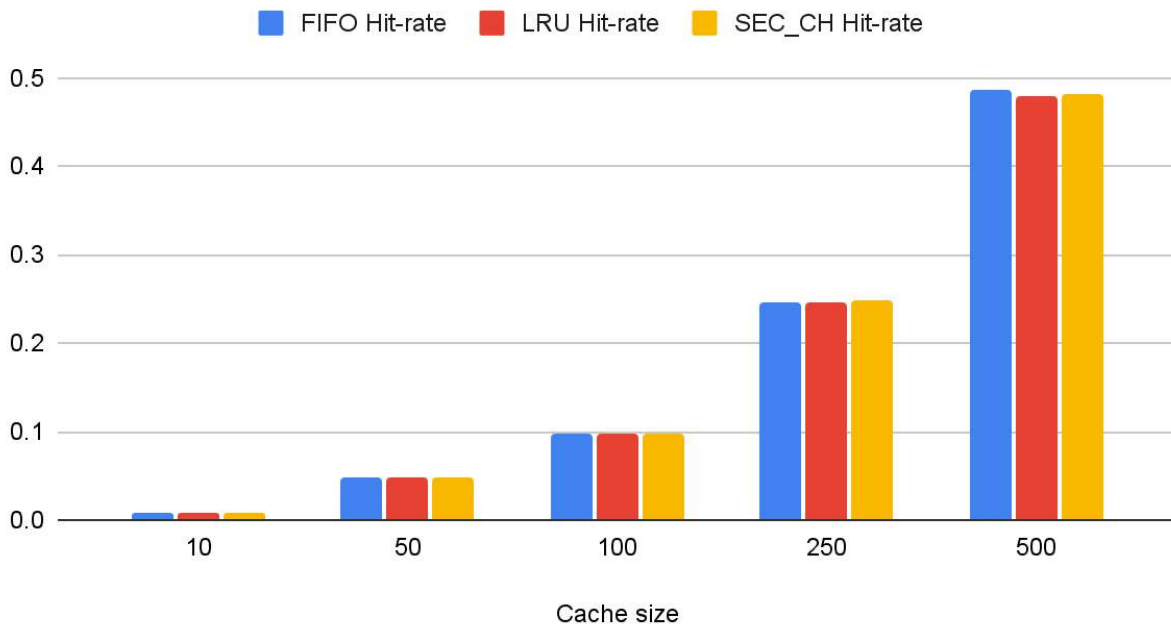


Writeup

FULL Data & Graph

A	B	C	D	E	F	G	H	I	J	K	L
Cache Size	FIFO Faults	LRU Faults	SEC_CH Faults		FIFO Hit-rate	LRU Hit-rate	SEC_CH Hit-rate		FIFO Miss-rate	LRU Miss-rate	SEC_CH Miss-rate
10	9916	9915	9915		0.0084	0.0085	0.0085		0.9916	0.9915	0.9915
50	9515	9510	9510		0.0485	0.049	0.049		0.9515	0.951	0.951
100	9018	9029	9022		0.0982	0.0971	0.0978		0.9018	0.9029	0.9022
250	7534	7532	7526		0.2466	0.2468	0.2474		0.7534	0.7532	0.7526
500	5130	5206	5178		0.487	0.4794	0.4822		0.513	0.5206	0.5178

FIFO Hit-rate, LRU Hit-rate and SEC_CH Hit-rate



Based on the data, we can see all algorithms are very close in performance and vary only slightly depending on cache size. Both LRU and SC did better than FIFO most of the time, but when FIFO did perform better, it was by a decent margin. LRU never did better than SC. With this said, I believe SC is the best algo as it overall performed the best the most. It really doesn't matter which you choose between FIFO or LRU, but LRU tends to be more consistent while FIFO could be the best or the worst on any given buffer size.

All data pulled from linux terminal:

```
-----End Second Chance-----  
FIFO 10K Test with cache size = 10, 50, 100, 250, 500  
Page Requests: 10000  
Page Faults: 9916  
Hitrate: 0.008400  
9916  
Page Requests: 10000  
Page Faults: 9515  
Hitrate: 0.048500  
9515  
Page Requests: 10000  
Page Faults: 9018  
Hitrate: 0.098200  
9018  
Page Requests: 10000  
Page Faults: 7534  
Hitrate: 0.246600  
7534  
Page Requests: 10000  
Page Faults: 5130  
Hitrate: 0.487000  
5130  
  
LRU 10K Test with cache size = 10, 50, 100, 250, 500  
Page Requests: 10000  
Page Faults: 9915  
Hitrate: 0.008500  
9915  
Page Requests: 10000  
Page Faults: 9510  
Hitrate: 0.049000  
9510  
Page Requests: 10000  
Page Faults: 9029  
Hitrate: 0.097100  
9029  
Page Requests: 10000  
Page Faults: 7532  
Hitrate: 0.246800  
7532  
Page Requests: 10000  
Page Faults: 5206  
Hitrate: 0.479400  
5206  
  
Second Chance 10K Test with cache size = 10, 50, 100, 250, 500  
Page Requests: 10000  
Page Faults: 9915  
Hitrate: 0.008500  
9915  
Page Requests: 10000  
Page Faults: 9510  
Hitrate: 0.049000  
9510  
Page Requests: 10000  
Page Faults: 9022  
Hitrate: 0.097800  
9022  
Page Requests: 10000  
Page Faults: 7526  
Hitrate: 0.247400  
7526  
Page Requests: 10000  
Page Faults: 5178  
Hitrate: 0.482200  
5178
```