

Table for SIMPLELOOP TRACE							
Algorithm	Memory	Hit Rate	Hit Count	Miss Count	Overall Eviction	Clean Eviction Count	Dirty Eviction Count
Fifo	50	70.9348	7224	2960	2910	2849	61
	100	72.9674	7431	2753	2653	2622	31
	150	73.3504	7470	2714	2564	2540	24
	200	73.4289	7478	2706	2506	2486	20
Clock	50	72.4961	7383	2801	2751	2741	10
	100	73.6351	7499	2685	2585	2577	8
	150	73.6646	7506	2682	2532	2521	9
	200	73.6744	7503	2681	2481	2473	8
LRU	50	72.6925	7403	2781	2731	2731	10
	100	73.6548	7501	2683	2583	2576	7
	150	73.6842	7504	2680	2530	2523	7
	200	73.6842	7504	2680	2480	2847	407
OPT	50	73.8119	7517	2667	2617	2616	1
	100	74.0770	7544	2640	2540	2540	0
	150	74.0770	7544	2640	2490	2490	0
	200	74.0770	7544	2640	2440	2440	0
Rand	50	70.7286	7203	2981	2931	2903	28
	100	72.8594	7420	2764	2664	2625	39
	150	73.3504	7470	2714	2564	2540	24
	200	73.3995	7475	2709	2509	2487	22

Table for BLOCKED TRACE							
Algorithm	Memory	Hit Rate	Hit Count	Miss Count	Overall Eviction	Clean Eviction Count	Dirty Eviction Count
Fifo	50	99.7322	2411604	6476	6426	6275	151
	100	99.8208	2413748	4332	4232	4176	56
	150	99.8254	2413857	4223	4073	4035	38
	200	99.8688	2414907	3173	2973	2948	25
Clock	50	99.7826	2412822	5258	5208	5182	26
	100	99.8344	2414075	7005	3905	3897	8
	150	99.8370	2414139	3941	3791	3782	9
	200	99.8682	2414894	3186	2986	2979	7
LRU	50	99.7843	2412865	5215	5165	5151	14
	100	99.8435	2414296	3784	3684	3677	7
	150	99.8443	2414314	3766	3616	3609	7
	200	99.8473	2414387	3693	3493	3486	7
OPT	50	99.8467	2414373	3707	3657	3651	6
	100	99.8756	2415073	3007	2907	2901	6
	150	99.8956	2415555	2525	2375	2369	6
	200	99.9059	2415805	2275	2075	2069	6
Rand	50	99.6528	2409685	8395	8182	8019	163
	100	99.7828	2412828	5252	5152	5080	72
	150	99.8176	2413670	4410	4260	4226	34
	200	99.8404	2414221	3859	3659	3635	24

Table for MATMUL TRACE							
Algorithm	Memory	Hit Rate	Hit Count	Miss Count	Overall Eviction	Dirty Eviction Count	Clean Eviction Count
Fifo	50	60.9655	1760595	1127261	1127211	21549	1105662
	100	62.479	180341	1083542	1083442	10648	1072749
	150	98.8086	2853450	34406	34256	238	34018
	200	98.8266	2853971	33885	33685	178	33507
Clock	50	63.9436	1846600	1041256	1041206	10	1041196
	100	63.9516	1846829	1041027	1040927	8	1040919
	150	98.8502	2854652	33204	33054	8	33046
	200	98.8607	2854954	32902	32707	8	32699
LRU	50	63.9447	1846630	1041226	1041186	14	1041162
	100	65.1487	1881402	1006347	1006354	7	1006347
	150	98.8613	2854973	32883	32733	7	32726
	200	98.8617	2854984	32872	32678	7	32665
OPT	50	79.6578	2300402	587454	587404	6	587398
	100	96.7868	2795062	92794	92694	6	92688
	150	99.0785	2861245	26611	26461	6	26455
	200	99.3330	2868595	19261	19061	6	19055
Rand	50	65.5307	1892431	995425	995375	18999	976376
	100	88.7967	2564320	323536	323436	3180	320256
	150	96.6764	2791876	95980	95830	657	95173
	200	98.0387	2831216	56640	56440	300	56140

Table for HEAP TRACE							
Algorithm	Memory	Hit Rate	Hit Count	Miss Count	Overall Eviction	Clean Eviction Count	Dirty Eviction Count
Fifo	50	94.5574	6324	364	314	301	13
	100	97.1441	6497	191	91	88	3
	150	97.4432	6517	171	21	19	2
	200	97.5628	6525	163	0	0	0
Clock	50	95.6498	6397	291	241	233	8
	100	97.4282	6516	172	72	70	2
	150	97.4581	6518	170	20	18	2
	200	97.5628	6525	163	0	0	0
LRU	50	95.7536	6404	284	234	227	7
	100	97.4282	6516	172	72	71	1
	150	97.5478	6524	164	14	14	0
	200	97.5628	6525	163	0	0	0
OPT	50	97.2189	6502	186	136	135	1
	100	97.5628	6525	163	63	63	0
	150	97.5628	6525	163	13	13	0
	200	97.5628	6525	163	0	0	0
Rand	50	94.1388	6296	392	342	330	12
	100	97.0993	6494	194	94	91	3
	150	97.5478	6524	164	14	14	0
	200	97.5628	6525	163	0	0	0

Paragraph about result of various algorithms

As the size of the memory increase, the hit rate for all the algorithm increases, but the increase of hit rate starts to slow down once the memory size hits a certain threshold. The Overall Eviction Count seems to decrease as the memory size increase for all the algorithms. The best algorithm is OPT, it has the highest hit rate and least Overall Eviction Count. However, OPT is not a practical algorithm since it requires knowledge of the future memory references. After OPT, Clock and LRU display the best performance for every trace file except MATMUL, as they have the highest hit rate and lowest Overall Eviction Count. For the MATMUL trace file, Rand performs better then LRU and Clock when there is low memory. For higher memory LRU and Clock perform better than Rand. FIFO and Rand generally perform worse than the other algorithms. For all the traces, when using higher memory, FIFO is slightly better than Rand in terms of Hit Rate and Overall Eviction Count.

Paragraph about the LRU when size of memory increases

As the size of the memory increase for the LRU algorithm, the hit rate increases and Overall Eviction Count decreases. For most of the traces done by the LRU, it generally performed better than FIFO, CLOCK and the RAND.