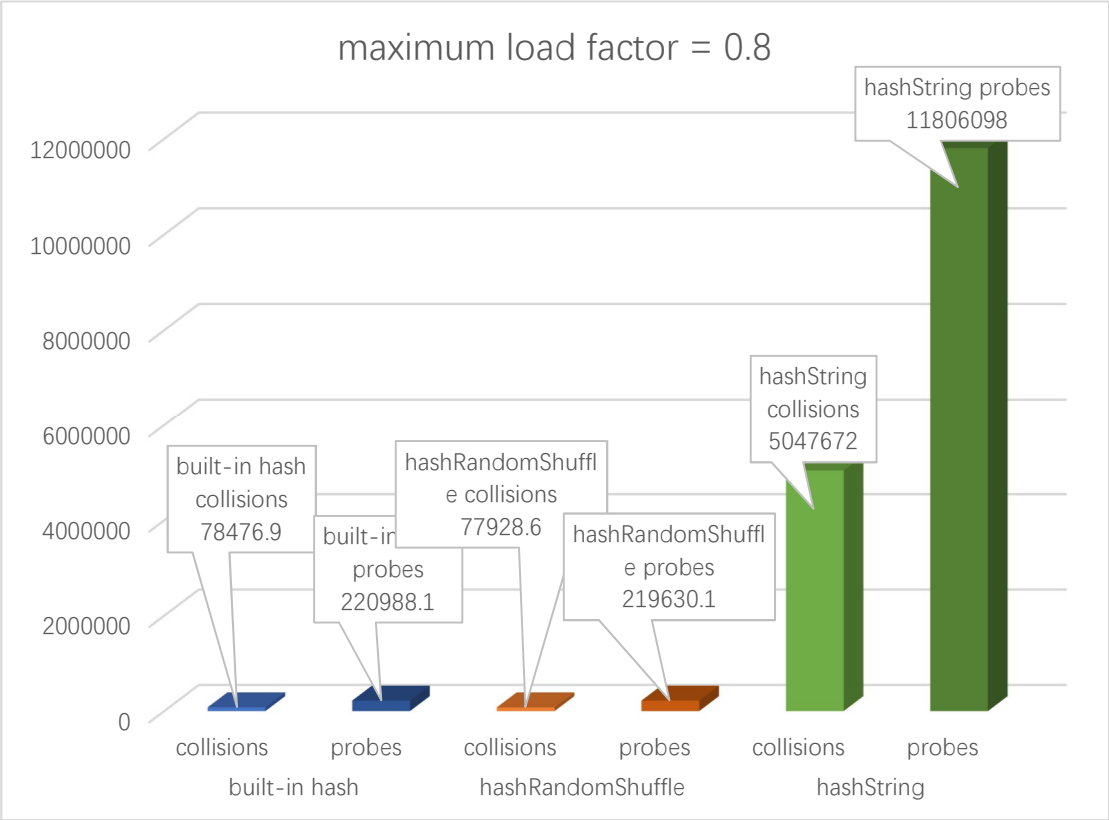
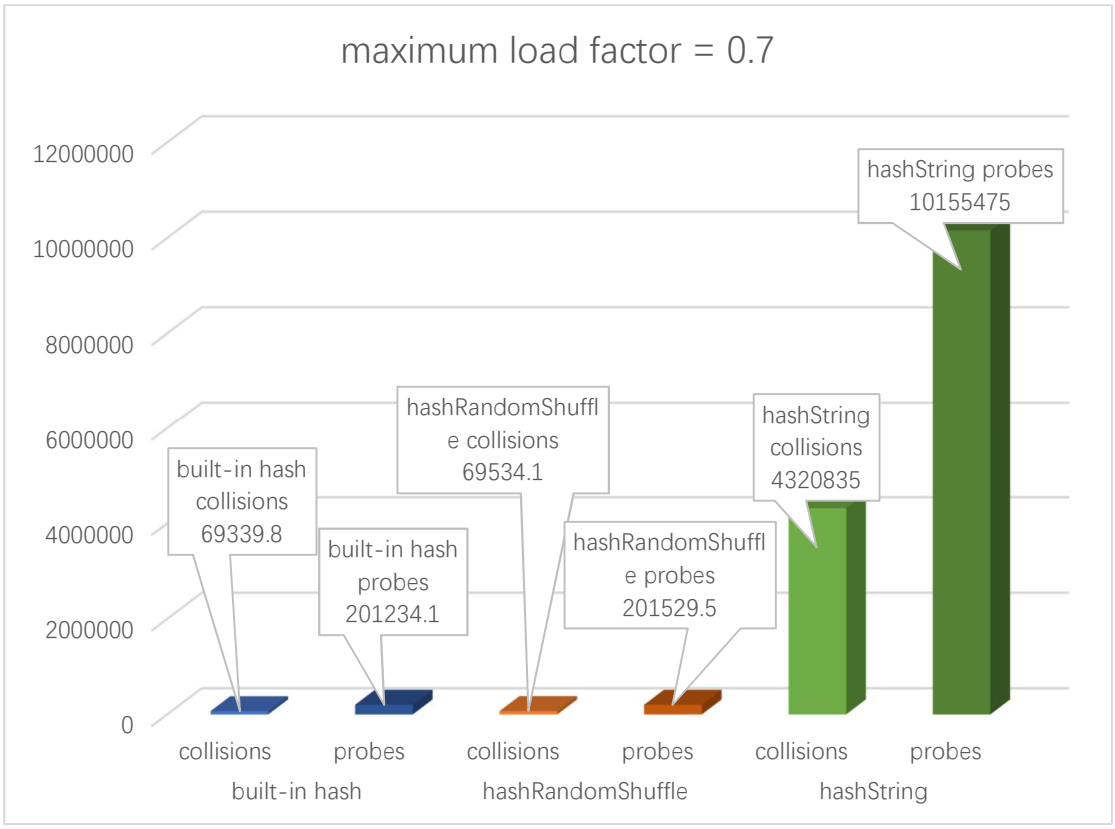
Lab7 Test report

Test case 1 Peter Pan by J. M. Barrie

Words: 51804
Characters (no spaces): 225169

Most frequently appears word: the
Appearance times: 2546

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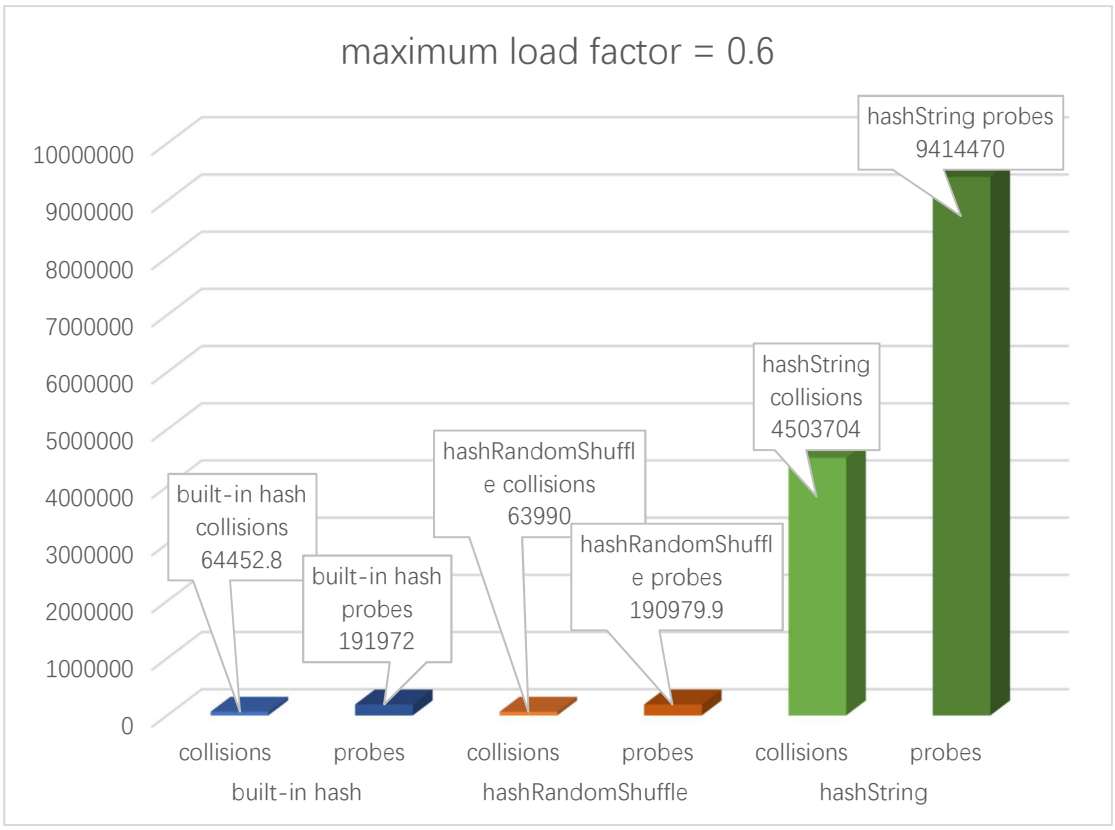
built-in hash collisions 69339.8
built-in hash probes 201234.1
hashRandomShuffle collisions 69534.1
hashRandomShuffle probes 201529.5
hashString collisions 4320835
hashString probes 10155475
collisions
probes
collisions
probes
collisions
probes
built-in hash
hashRandomShuffle
hashString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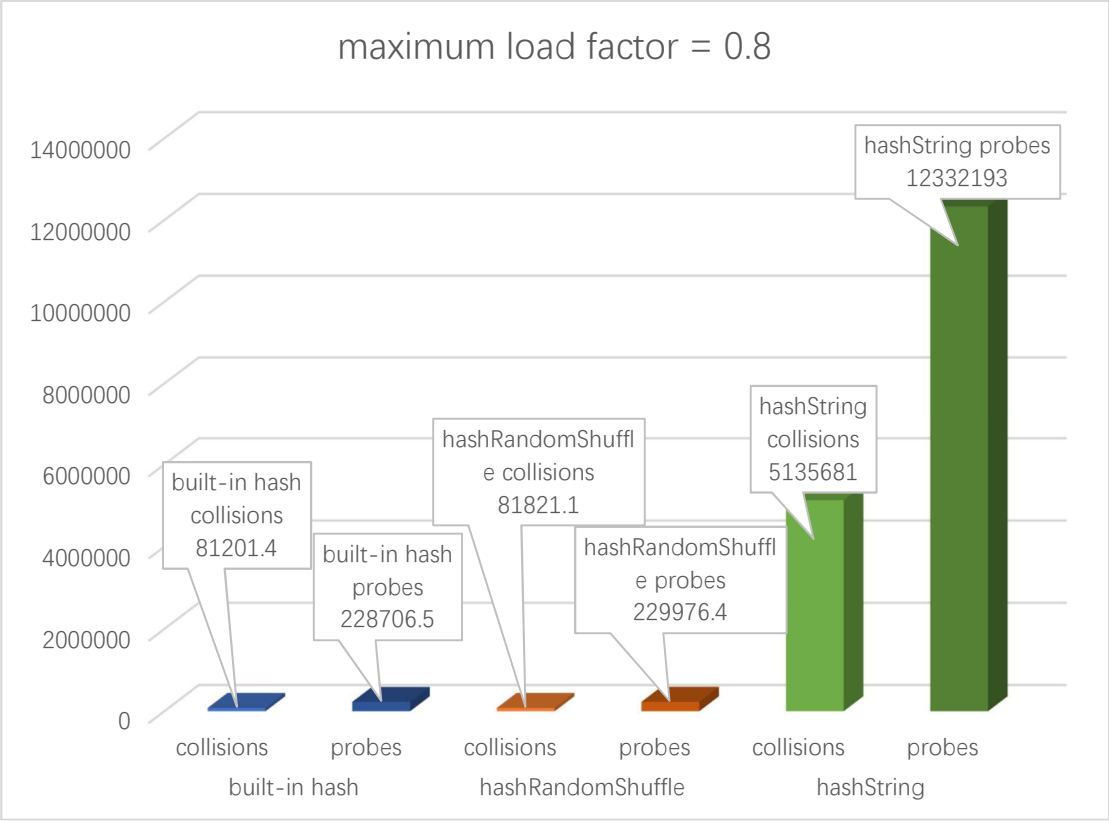
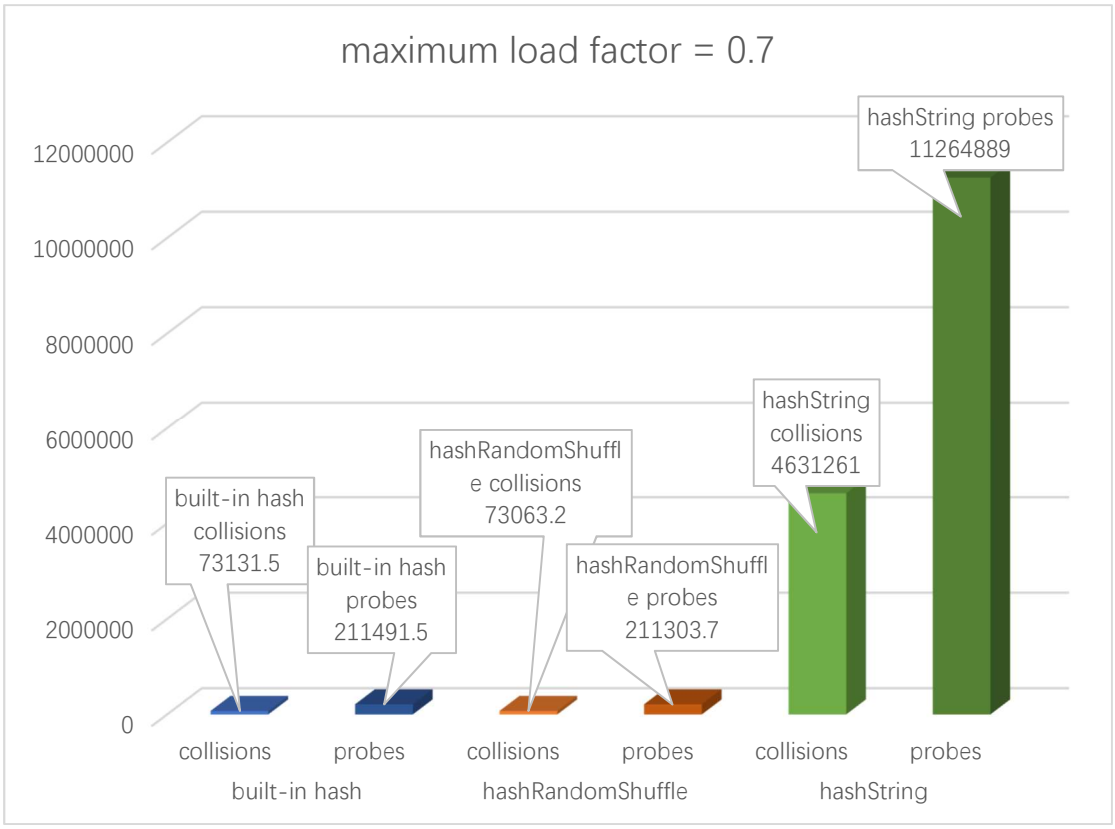
built-in hash collisions 64452.8
built-in hash probes 191972
hashRandomShuffle collisions 63990
hashRandomShuffle probes 190979.9
hashString collisions 4503704
hashString probes 9414470
collisions
probes
collisions
probes
collisions
probes
built-in hash
hashRandomShuffle
hashString

Test case 2　The Prince by Niccolò Machiavelli

Words: 52677
Characters (no spaces): 246116

Most frequently appears word: the
Appearance times: 3111




maximum load factor = 0.7
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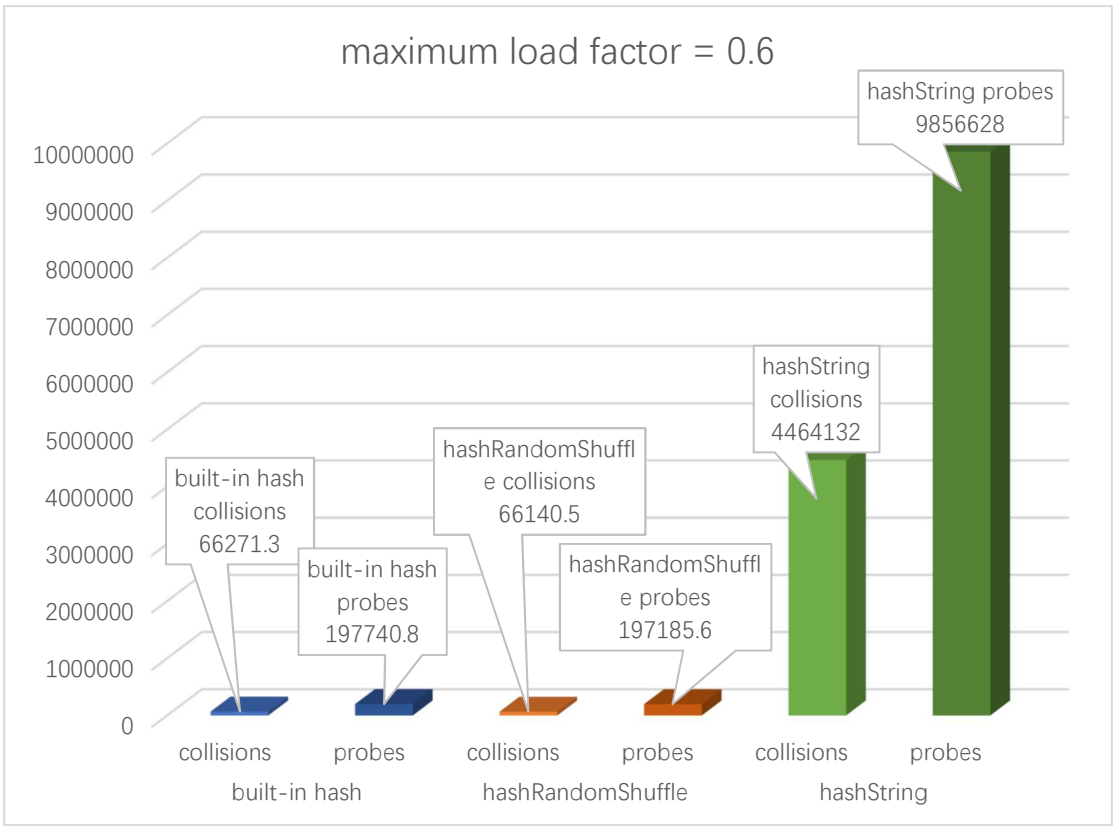
built-in hash collisions 73131.5
built-in hash probes 211491.5
hashRandomShuffle collisions 73063.2
hashRandomShuffle probes 211303.7
hashString collisions 4631261
hashString probes 11264889
collisions
probes
collisions
probes
collisions
probes
built-in hash
hashRandomShuffle
hashString


maximum load factor = 0.6
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1000000
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built-in hash collisions 66271.3
built-in hash probes 197740.8
hashRandomShuffle collisions 66140.5
hashRandomShuffle probes 197185.6
hashString collisions 4464132
hashString probes 9856628
collisions
probes
collisions
probes
collisions
probes
built-in hash
hashRandomShuffle
hashString

Appendix All test record

Peter Pan

maximum load factor = 0.8

	built-in hash		hashRandomShuffle		hashString	
	collisions	probes	collisions	probes	collisions	probes
1	79414	224497	76844	217167	5047672	11806098
2	76110	214886	75755	213847	5047672	11806098
3	79623	224107	77365	218332	5047672	11806098
4	79636	223177	76497	215895	5047672	11806098
5	78574	220544	79403	223256	5047672	11806098
6	80623	225777	78447	221293	5047672	11806098
7	78381	220740	79994	224450	5047672	11806098
8	76651	216716	77066	217689	5047672	11806098
9	76666	216892	78316	221299	5047672	11806098
10	79091	222545	79599	223073	5047672	11806098
avg	78476.9	220988.1	77928.6	219630.1	5047672	11806098

maximum load factor = 0.7

	built-in hash		hashRandomShuffle		hashString	
	collisions	probes	collisions	probes	collisions	probes
1	69659	201588	69762	202060	4320835	10155475
2	67419	196702	69558	201354	4320835	10155475
3	70440	203424	69691	201901	4320835	10155475
4	69272	201040	69520	201155	4320835	10155475
5	69108	201140	68908	200333	4320835	10155475
6	69926	203067	68519	198457	4320835	10155475
7	69407	201308	70938	205155	4320835	10155475
8	67245	195849	70324	204731	4320835	10155475
9	71436	206422	69129	200189	4320835	10155475
10	69486	201801	68992	199960	4320835	10155475
avg	69339.8	201234.1	69534.1	201529.5	4320835	10155475

maximum load factor = 0.6

	built-in hash		hashRandomShuffle		hashString	
	collisions	probes	collisions	probes	collisions	probes
1	64383	191896	63888	190229	4503704	9414470
2	63498	189156	64229	191616	4503704	9414470
3	65869	195711	63382	189190	4503704	9414470
4	64818	193365	63285	189074	4503704	9414470
5	66566	197778	63002	188591	4503704	9414470

6	62981	188316	62137	187032	4503704	9414470
7	63919	190758	64134	190981	4503704	9414470
8	64389	191431	64977	193614	4503704	9414470
9	63881	189631	64652	192587	4503704	9414470
10	64224	191678	66214	196885	4503704	9414470
avg	64452.8	191972	63990	190979.9	4503704	9414470

The Prince

maximum load factor = 0.8

	built-in hash		hashRandomShuffle		hashString	
	collisions	probes	collisions	probes	collisions	probes
1	77901	221146	81347	228288	5135681	12332193
2	81446	229295	83945	235711	5135681	12332193
3	84027	236187	81473	229621	5135681	12332193
4	80463	227391	81133	228991	5135681	12332193
5	81725	229835	82965	232607	5135681	12332193
6	82471	231795	82962	232364	5135681	12332193
7	83136	233375	80822	227123	5135681	12332193
8	82941	232749	83326	233322	5135681	12332193
9	78282	221307	80207	225893	5135681	12332193
10	79622	223985	80031	225844	5135681	12332193
avg	81201.4	228706.5	81821.1	229976.4	5135681	12332193

maximum load factor = 0.7

	built-in hash		hashRandomShuffle		hashString	
	collisions	probes	collisions	probes	collisions	probes
1	73575	212058	76158	218807	4631261	11264889
2	72866	210752	72556	210784	4631261	11264889
3	72908	210690	71630	207734	4631261	11264889
4	74604	215010	70952	205690	4631261	11264889
5	73730	213189	71049	205769	4631261	11264889
6	73869	213429	75648	218359	4631261	11264889
7	71948	208698	74372	214659	4631261	11264889
8	73222	211634	72428	210123	4631261	11264889
9	73041	211500	71431	206460	4631261	11264889
10	71552	207955	74408	214652	4631261	11264889
avg	73131.5	211491.5	73063.2	211303.7	4631261	11264889

maximum load factor = 0.6

	built-in hash		hashRandomShuffle		hashString	
	collisions	probes	collisions	probes	collisions	probes
1	66022	197169	66234	197635	4464132	9856628
2	66172	197614	65284	195221	4464132	9856628
3	66508	198182	65005	194560	4464132	9856628
4	66688	198899	65593	195821	4464132	9856628
5	67326	201127	66283	197711	4464132	9856628
6	65922	196872	67018	198913	4464132	9856628
7	65436	195623	65729	196086	4464132	9856628
8	65960	196385	65334	195160	4464132	9856628
9	67086	199672	66431	197473	4464132	9856628
10	65593	195865	68494	203276	4464132	9856628
avg	66271.3	197740.8	66140.5	197185.6	4464132	9856628