

Linear Hashing Example

You want to build a linear hashing scheme on a given attribute. Assume you start with 8 buckets numbered from 0 to 7, using $h_0(K) = K \bmod 8$. Each bucket holds two items / records.

Show the structure of the linear hashing scheme upon inserting the following elements: 2449, 3776, 4692, 9224, 4871, 5659, 1821, 1090, 8003, 1620, 2428, 3943, 4846, 7071, 6066, 4981 and 7323.

K	K mod 4	K mod 8	K mod 16	K mod 32
2449	1	1	1	17
3776	0	0	0	0
4692	0	4	4	20
9224	0	0	8	8
4871	3	7	7	7
5659	3	3	11	27
1821	1	5	13	29
1090	2	2	2	2
8003	3	3	3	3
1620	0	4	4	20
2428	0	4	12	28
3943	3	7	7	7
4846	2	6	14	14
7071	3	7	15	31
6066	2	2	2	18
4981	1	5	5	21
7323	3	3	11	27