Conclusions

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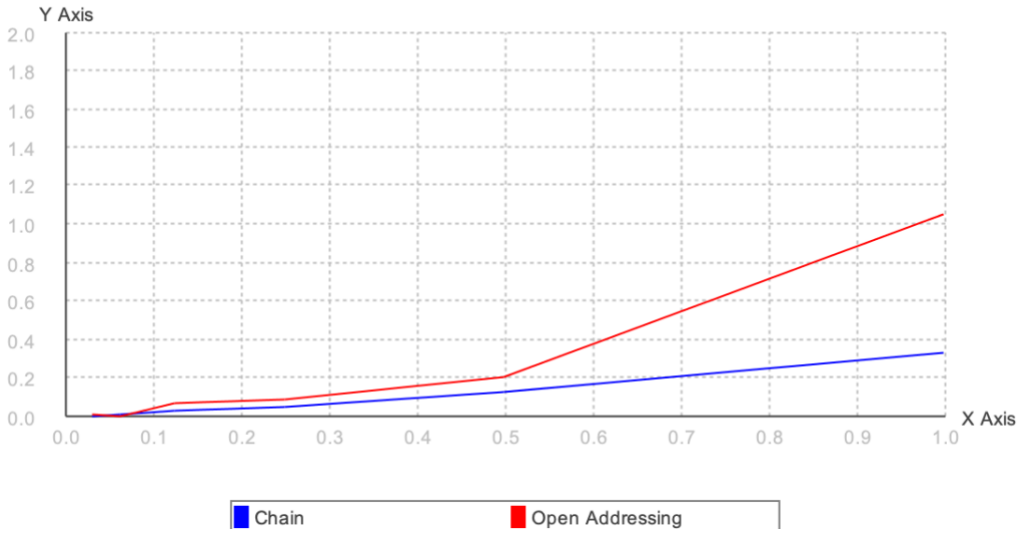
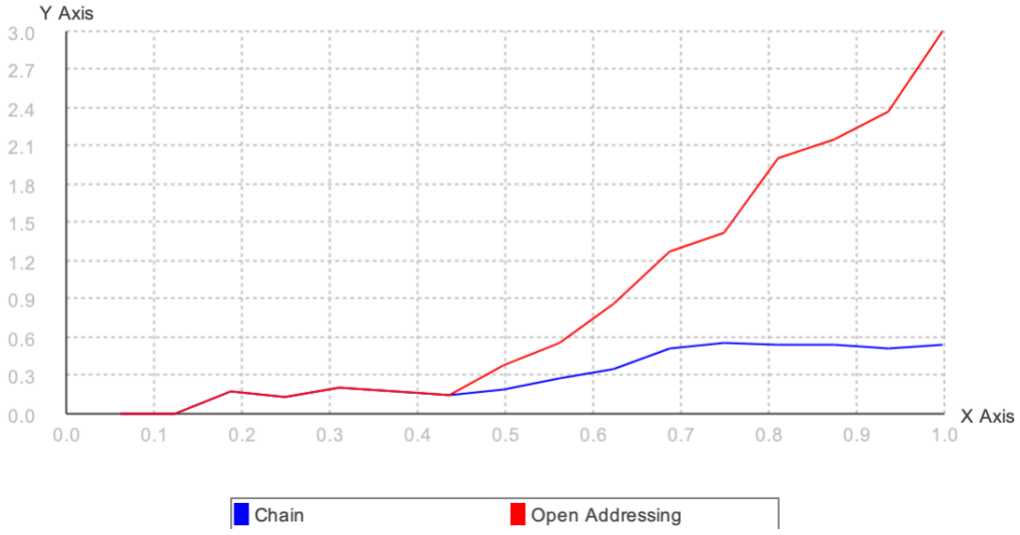
This table represents the effect of varying the value of w on the number of collisions using the two hashing techniques. The value of w basically determines the number of slots available. For example, if we have a w with the value 12, we will have 64 slots. In this case we are varying the values of slots. So as w is changing so is the value of α. At lower values of α both hash functions will have similar values, so in the graph the lines are close together. But as the value of α increases, the number of collisions occurring during Open Addressing will increase at a greater rate. This is because when we are using Open Addressing, and α is high, clusters are formed, which leads to more collisions. As α increases above 0.5, an insert method for open finds it harder to find an empty slot. Whereas for Chaining, as long as the chain does not become too big, the number of collisions remain low.




Y Axis
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
X Axis
Chain
Open Addressing


Y Axis
3.0
2.7
2.4
2.1
1.8
1.5
1.2
0.9
0.6
0.3
0.0
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
X Axis
Chain
Open Addressing