

COMP 251

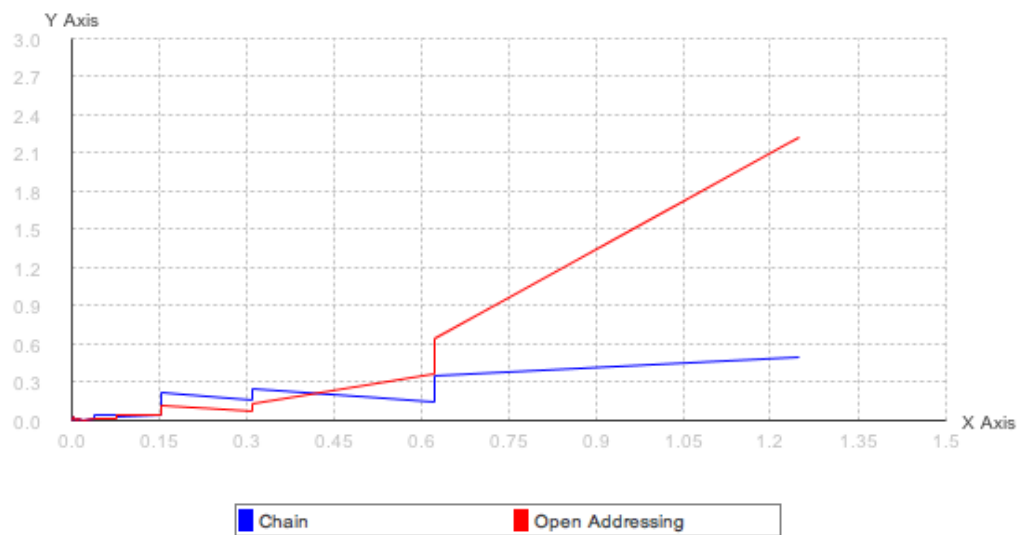
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Assignment 1

## Conclusions

### Task 3



We can see that the average number of collision increase in a larger scale in open addressing than in chaining. This has been verified for the majority of the cases after repeated iterations. The reason behind this is due to one drawback of linear probing: primary clustering. Long runs of search returns an increased number of “collisions” overall. Both data seem to be linear, but I strongly assume that it might be showing a linear trend due to relatively few number of iterations (it might be  $n$ -th power polynomial or exponential?). When  $w$  is relatively small, however, open addressing can get as efficient (if not more).