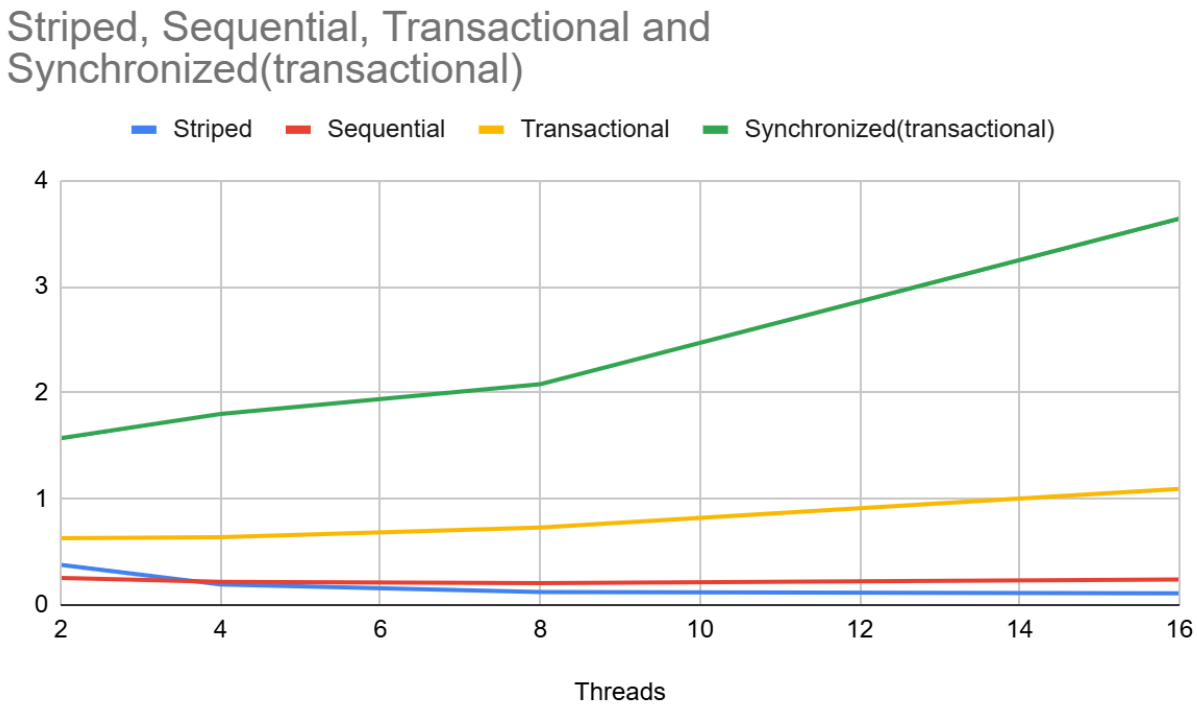
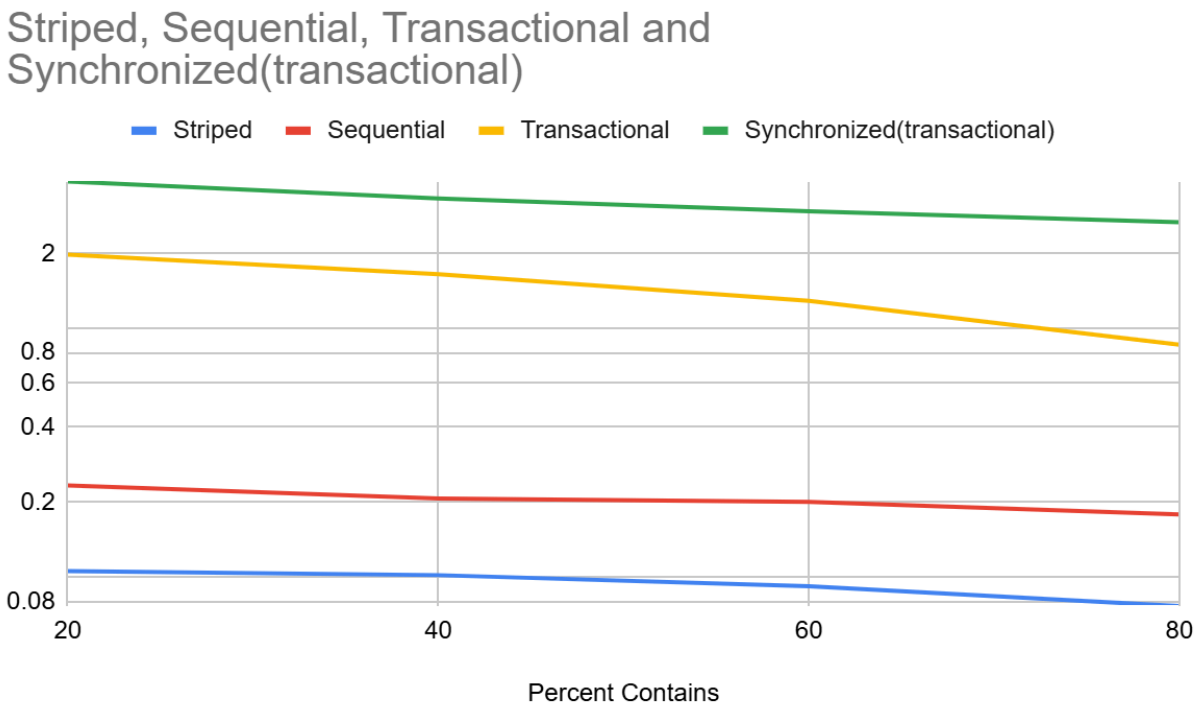
HW3 Transactional

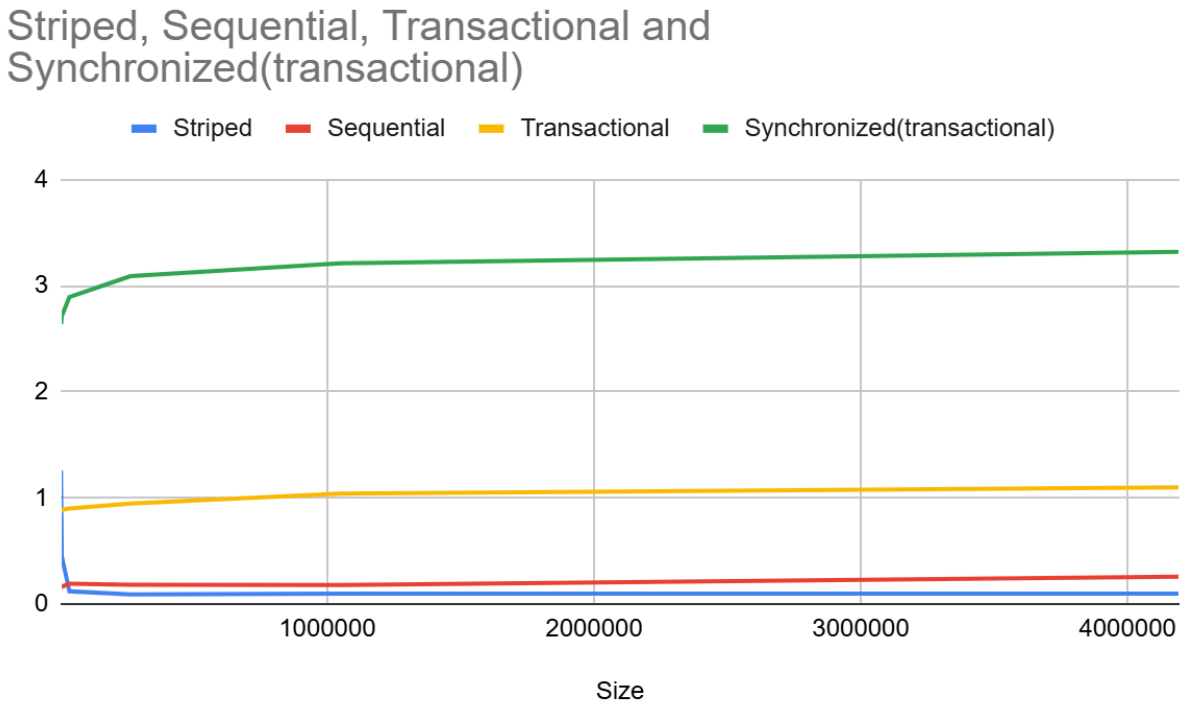
Both my attempts at transactional went pretty terribly, with both being way slower than even the sequential. I got significant speedup in my second version compared to the original transactional, but unfortunately neither one actually works correctly with more than one thread for reasons I could not decipher. I got it to the point where neither one caused segmentation faults or deadlocks, but could not figure out what was going wrong with the actual operations.



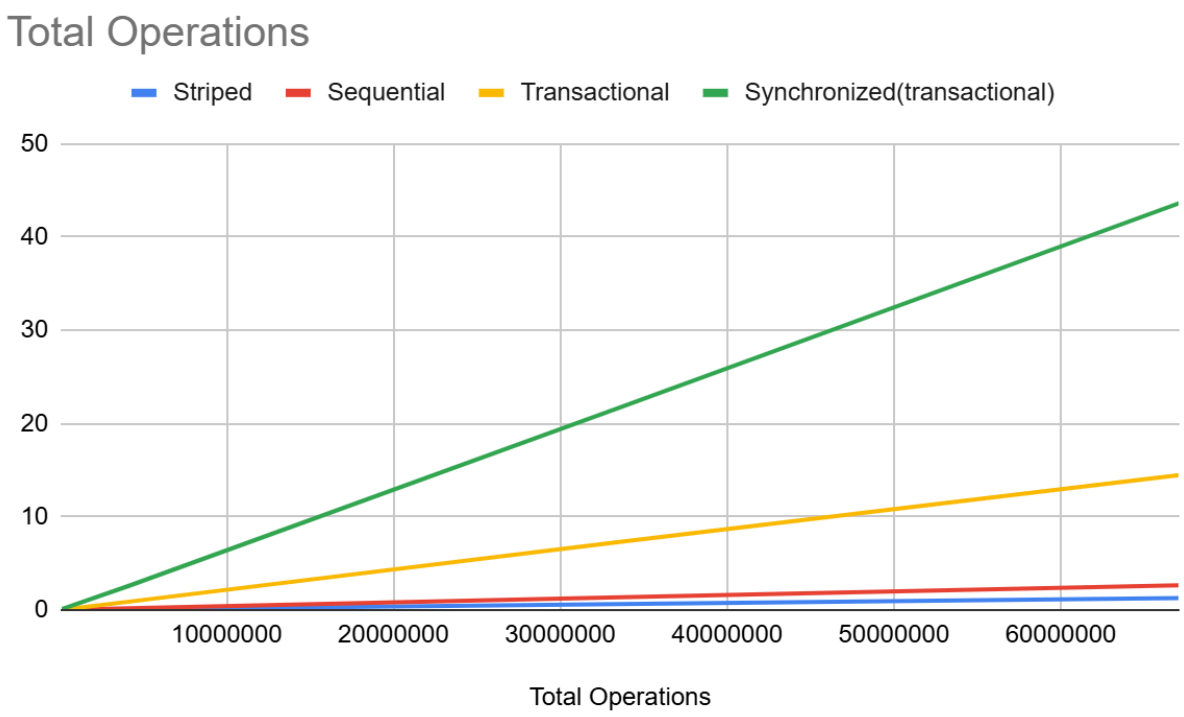
Interestingly, both transactional versions also take longer with more threads, presumably just from all the locking and unlocking.



They also all run faster with more contains, as expected. This graph has a logarithmic y axis because otherwise the non transactional versions look like they are straight lines.



We can also see that they both run slower with larger hashset sizes, which is not the case for the concurrent version.



Significantly less interesting, but we do confirm that the runtime scales with the amount of operations conducted as we expected, since the amount of each type of operation stays the same. This was a good sanity check to see that it was actually running all the operations, though.