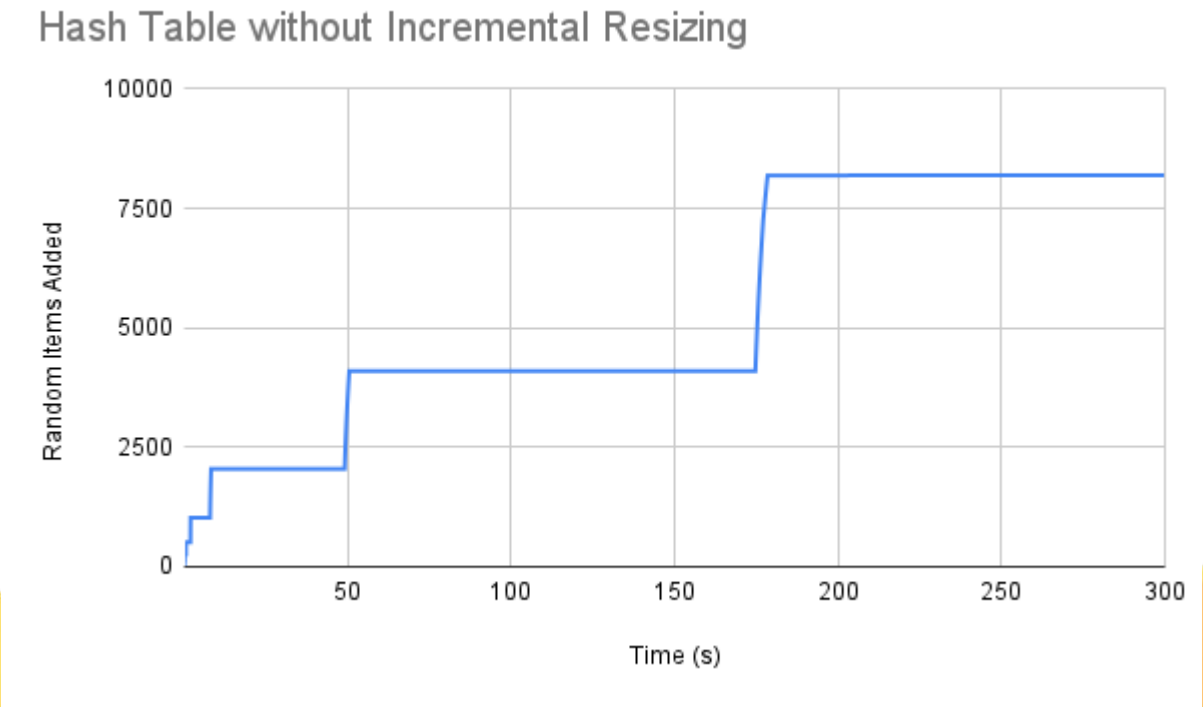
Hash Map

Computer Programming III / Tristan Goodell

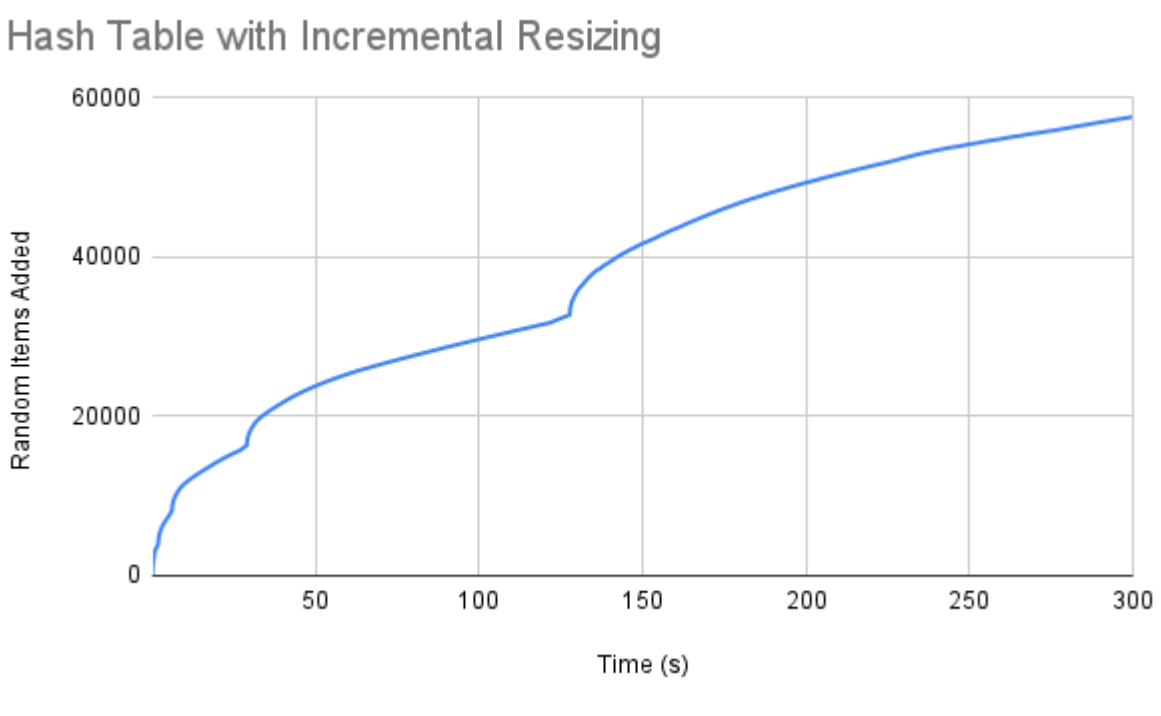
Without Incremental Resizing

- Adding 2^i random items and stopping at five minutes.
- 8192 items.



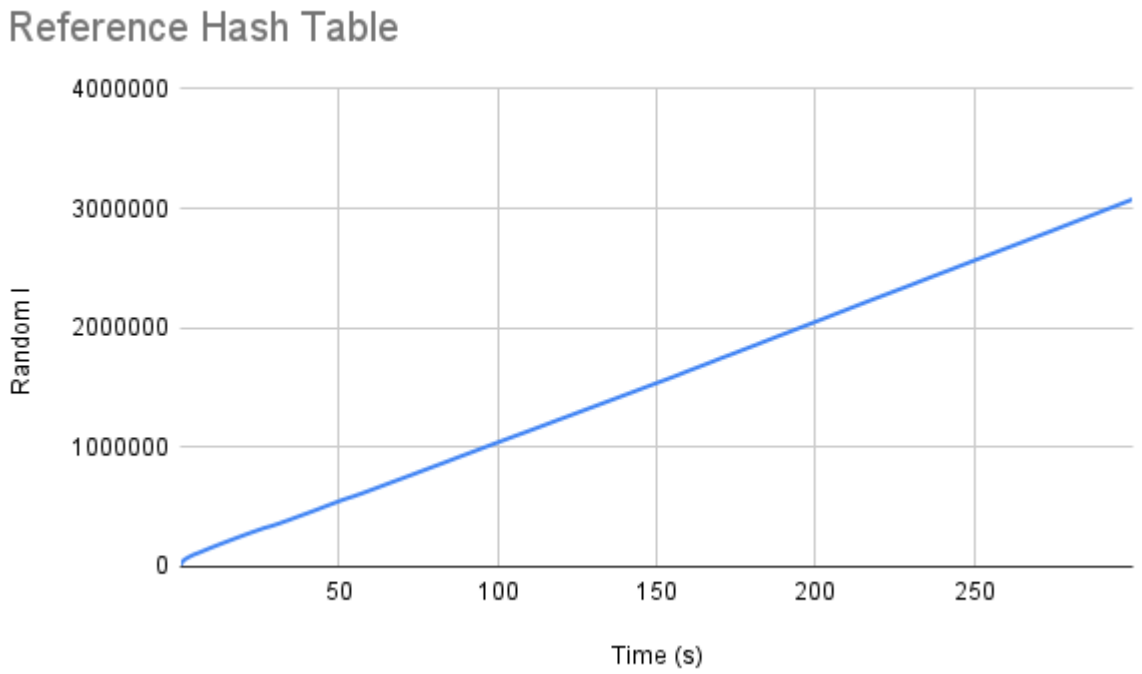
With Incremental Resizing

- Adding 2^i random items and stopping at five minutes.
  - When resizing, 3 items were transferred each turn.
- 57628



Reference Hash Table

- Adding 2^i random items and stopping at five minutes. Built by Amorpheous.
- 3076740 items.



General Observations

- The pro solution performed the best, effectively adding items O(n).
  - Added over 57 times more items than with incremental resizing.
- Hash with IR allowed items to keep being added while it is resized.
  - This allowed it to add 7 times more items without IR.
- Hash without IR performed the worst because it had to wait increasingly long periods of time while the Hash Table was resized before it could resume adding.