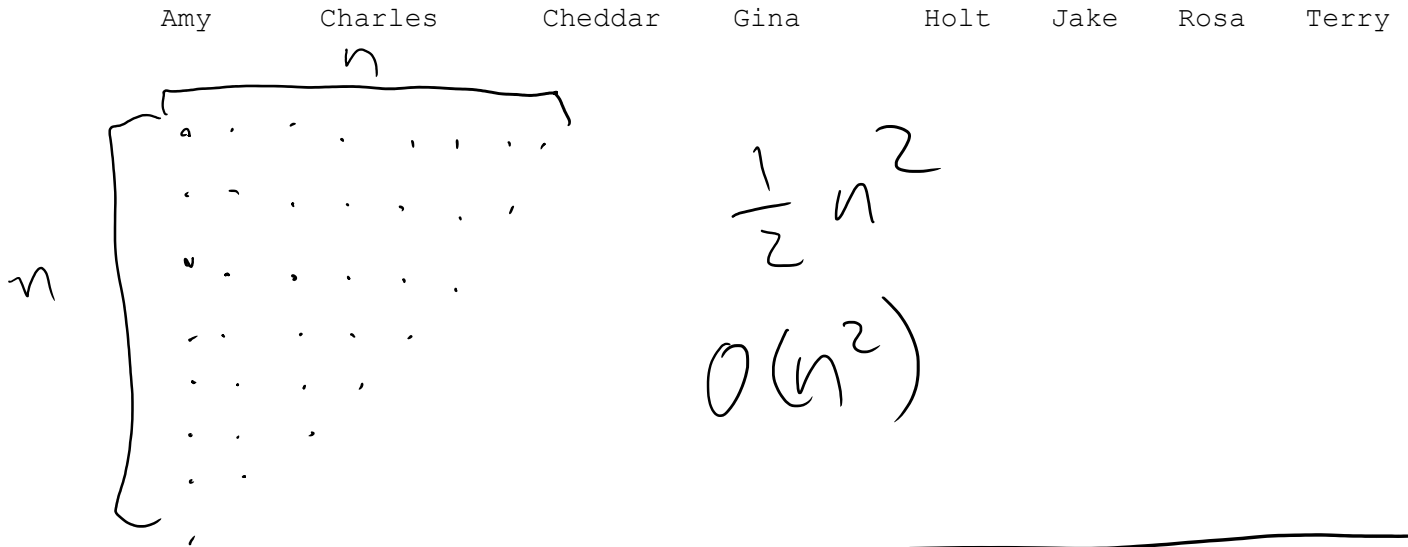


07-31: Sorting

Unsorted: Jake Charles Terry Rosa Gina Cheddar Amy Holt

Selection Sort: Go through the list and pull out the smallest (first) element. Loop through and constantly do this until you have picked everyone

Unsorted:



Unsorted: Charles Jake Rosa Gina Cheddar Amy Holt Terry

Bubble Sort: Repeatedly go through the list and compare pairs, swapping them into sorted order.
 $O(n^2)$

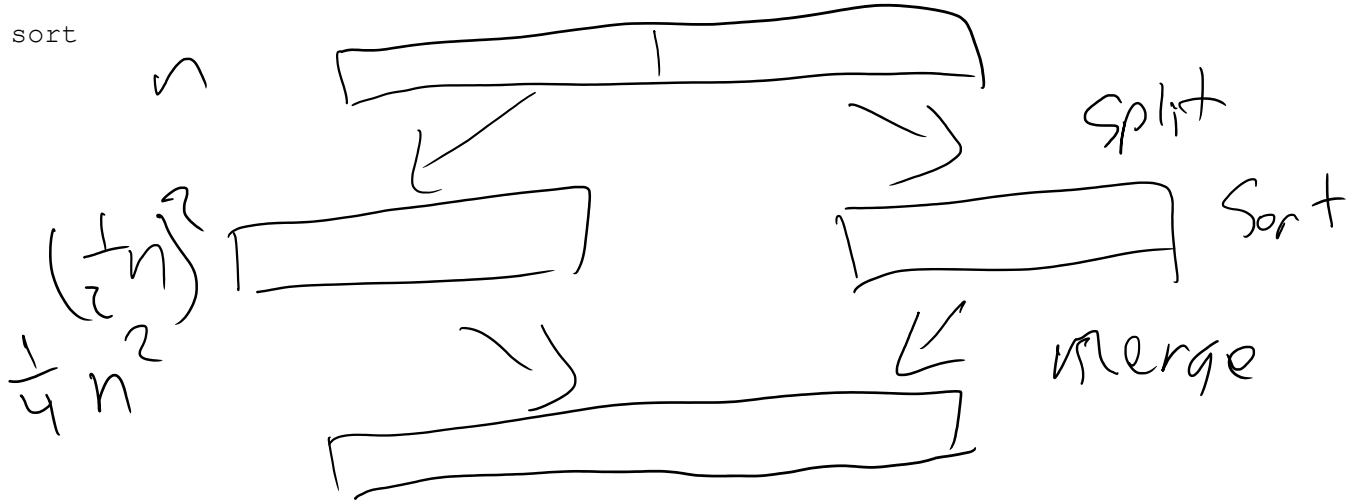
Unsorted: Jake Charles Terry Rosa Gina Cheddar Amy Holt

8! Bogo Sort: Randomly shuffle the list. Check if it is sorted, if it's not, shuffle again

Unsorted: Cheddar Amy Holt

Insertion Sort: Take the people in the list as they appear, and insert them into a new list that you are building up, maintaining sorted order.
 $O(n^2)$

Merge sort



14	32	67	76
----	----	----	----

23	41	58	85
----	----	----	----



14	23	32	41	58	67	76	85
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In-place sort: We don't need to make a separate auxilliary structure to sort

Stable sort: In the case of ties where two things are equal, we maintain the relative order of the two