

5. The time complexity of this code is $O(V + n \log n)$ where V is the number of votes and n is the number of candidates, this is the time complexity because in the worst case you have to go through all of the votes + traverse the heap fully which can be $n \log n$ time. Therefore time complexity is $O(V + n \log n)$.

Space complexity is $O(n)$ because we store the candidates, and the vote counts, and we can do this $O(n)$ times depending on how much we are storing.