Let us define an optimal solution O = $\{L_{x1}, L_{x2}, L_{x3}, . . ., L_{xn}\}$ and our greedy algorithm solution G = $\{L_{y1}, L_{y2}, L_{y3}, . . ., L_{ym}\}$. Assuming that these two solutions are not the same, this means that there are elements in O that might not be in G, or elements in G that might not be in O and hence the orders of O and G might be different or there are elements in G in a different order than O. We can **exchange** the elements between the sets to make them similar to each other. If for example, the optimal algorithm stopped at a stop for 20 mins, we'd see my greedy algorithm stopping for 4 mins at 5 different stops. Both algorithms will give a total time of 20 mins and hence can be considered optimal for the first case. The second case is not possible as different orderings can not take place because O and G can't go in a reverse order. Hence we can conclude that G is also the optimal algorithm.