Imagine a future where highways closely monitor traffic and reroute cars to optimize the total number of cars getting from point a to point b, called a “Max Flow”. You can (and often should) send only partial capacities down a given edge. However, a greedy algorithm of just pushing as much as you can along each edge doesn’t always work, so your algorithm will need to allow for ‘undoing’ some flow with residual edges that go backwards. Describe an algorithm for finding the max flow of a network, prove its termination and prove its time complexity. Do not worry about correctness yet, we’ll do that next time.