Problem Set 8

CS 331H

Due Thursday, April 15

1. Given an undirected graph with positive edge weights, a source s, and a sink t, find the shortest path from s to t and back to s that uses each edge at most once. Aim for $O(E + V \log V)$ time.

   Hints: Look for an "augmenting path," inspired by Ford-Fulkerson but slightly different. And to get the desired runtime, you may need to use a potential function.

2. Do the Jupyter notebook on the website.