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CSCI-UA 310-001 PS3b

2. Using the fact that if all edge weights are non-negative integers bounded by a constant, then we can implement Dijkstra (with buckets) in time $O(nB + m)$, where B is the bound

Because all legal edges are irrelevant we will loop through the graph and assign all legal edges a value of 0. Then construct a reverse edge, which will be denoted as illegal, and assign all illegal edges a value of 1.

for each v ∈ Successor(u) where u ∈ V:
    wt(u, v) ← 0
    wt(v, u) ← 1

Then, run Dijkstra with buckets algorithm, and return a subset of R (the result set) where the first element is s and the last element is t (R[s, t]) without changing the order of R

This algorithm will run in $O(n + m)$ time, as the bound B = 1.