CS2040S Recitation 9

AY 24/25 Sem 2 — github/omgeta

Q1. (a.) Use an adjacency matrix. Each vertex is a currency. Edge direction implies a conversion between currencies, with the weight as the exchange rate.

(b.) Product of weights on cycles do not exceed 1.

(c.) Modify relax so triangle inequality is $\delta(S, v) \geq \delta(S, u) \times \delta(u, v)$

Q2. Make duplicate graph G' and connect all edges from supply drop nodes over to same supply drop node in the duplicate graph. Run SSSP from source to end in duplicate. Space complexity: $O(V)$