Homework 2.2. Due Tuesday MARCH 7TH

Consider the Bellman ford algorithm for finding single source shortest path. A description of the algorithm is available at https://en.wikipedia.org/wiki/Bellman-Ford_algorithm. Create a SIMD parallel implementation using gather and scatter operations. Optimize the performance with tiling. Your implementation must avoid any race conditions. In your evaluation, check correctness by comparing the results with serial code, and compare performance without SIMD, with SIMD but no tiling, and with SIMD and tiling. Use at least two different graph datasets from https://snap.stanford.edu/data/#socnets.