

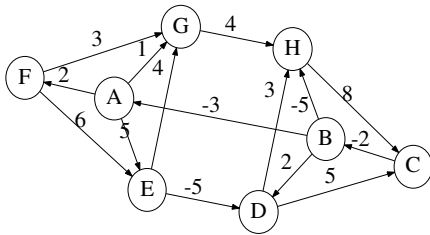
Today: Single-source shortest paths. §§ 24.*.

Next class: Term-project proposals due. All-pairs shortest paths. §§ 25.*.

Reminders: Quiz on Thu. next week. Revise data structures.

1. List the members of your group below. Underline your name.

2. Trace the execution of the Bellman-Ford single-source shortest paths (SSSP) algorithm on the following directed graph, with vertex A as the source. Use the textbook's Fig. 24.4 (p. 652) as a model. Relax edges in lexicographic order. Annotate predecessor edges with check marks.



3. Repeat Question 2 using Dijkstra's SSSP algorithm, treating all negative edge weights as positive, and using the textbook's Fig. 24.6 (p.659) as a guide.

4. Informal homework: Augment the answer to Question 3 with the states of the primary data structures at each step (pairing heap, union-find).