

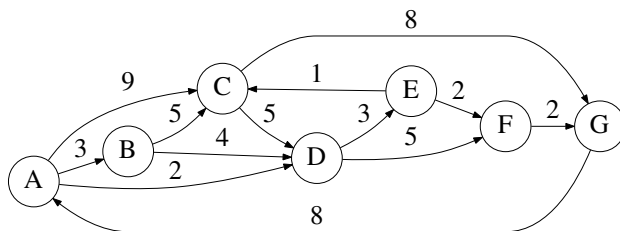
Today: Synthesis and review of recent material.

Next class: Midterm Exam 2. Next week: String matching. 32.{0,1,2,3}.

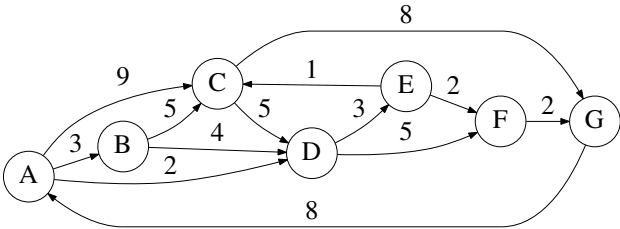
Reminders: Portfolio/poster. Newsgroup. Reading. Coding. Practice. Don't fall behind.

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

2. (19 pts.) Trace the execution of the Dijkstra's single-source shortest paths (SSSP) algorithm on the following directed graph, with vertex A as the source.
 - Use the textbook's Fig. 24.6 (p.659) as a model.
 - Visit the neighbors of each vertex in lexicographic order.
 - Annotate predecessor edges with check marks.

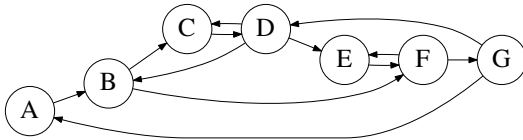


[additional space for answering the earlier question]



3. (20 pts.) Trace the operation of $\text{DFS-VISIT}(G, A)$, for the following directed graph G using the conventions of Figure 22.4 (p. 605) of the textbook. In particular:

- Depict the state of the graph after each iteration of the for loop.
- Annotate each vertex with its color: **White**, **Gray**, **Black**.
- Record the discovery and finishing times in the format d/f .
- Highlight tree edges using double lines, and annotate **Forward**, **Backward**, and **Cross** edges.



[additional space for answering the earlier question]

