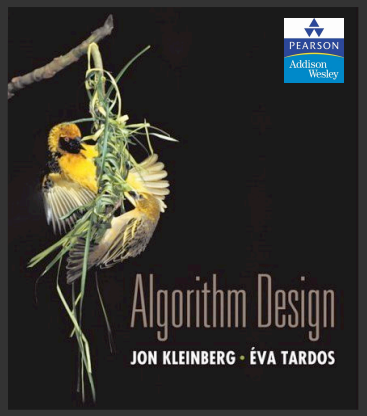
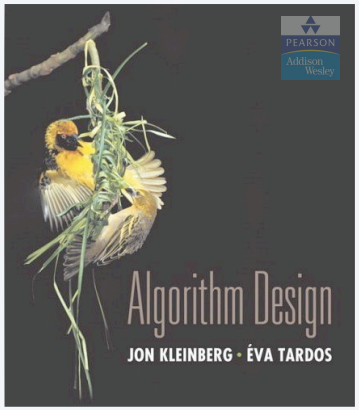


4. GREEDY ALGORITHMS II

- *Dijkstra's algorithm demo*
- *improved Dijkstra's algorithm demo*

Last updated on Sep 8, 2013 6:19 AM



SECTION 4.4

4. GREEDY ALGORITHMS II

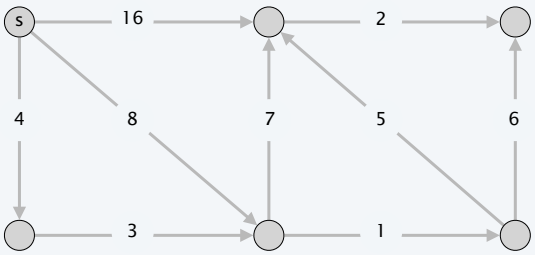
- *Dijkstra's algorithm demo*
- *improved Dijkstra's algorithm demo*

Dijkstra's algorithm demo

- Initialize $S = \{ s \}$, $d(s) = 0$.
- Repeatedly choose unexplored node v which minimizes

$$\pi(v) = \min_{e = (u,v) : u \in S} d(u) + \ell_e ,$$

add v to S; set $d(v) = \pi(v)$.



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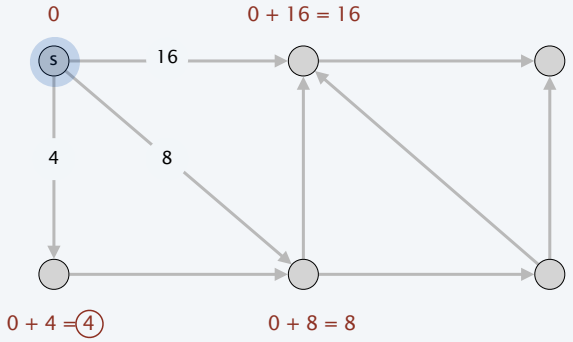

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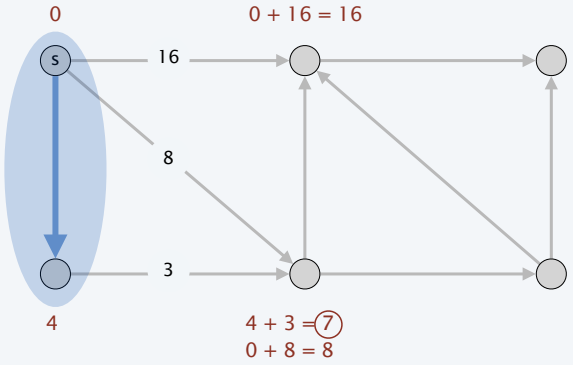

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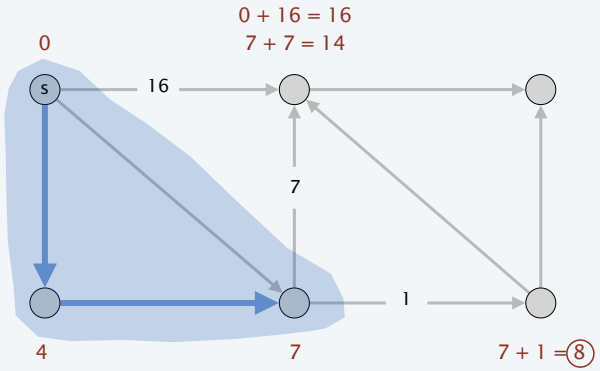

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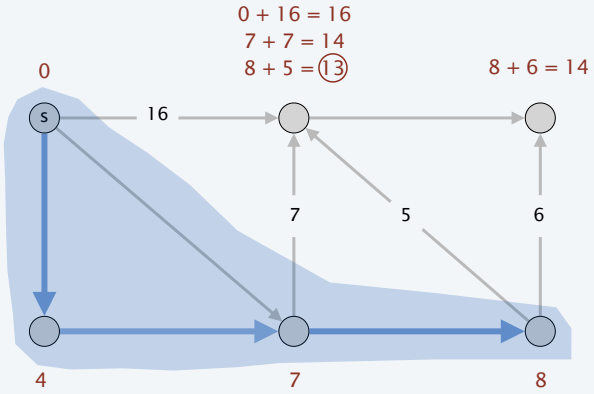

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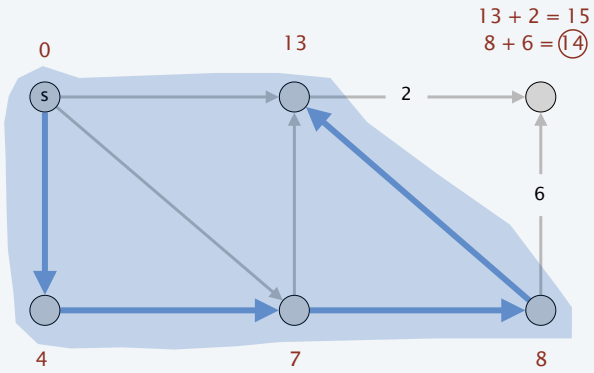

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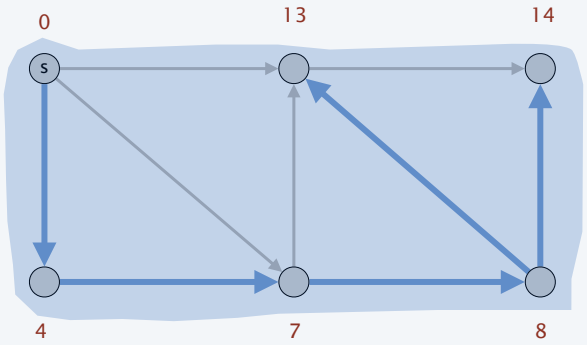

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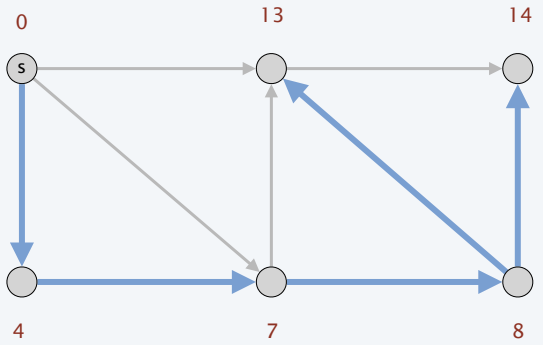

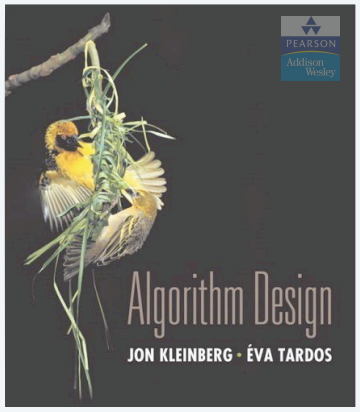

SECTION 4.4

4. GREEDY ALGORITHMS II

Improved Dijkstra's algorithm demo

- Initialize $\pi(s) = 0$.
- Repeatedly choose $u \notin S$ with minimum $\pi(v)$.
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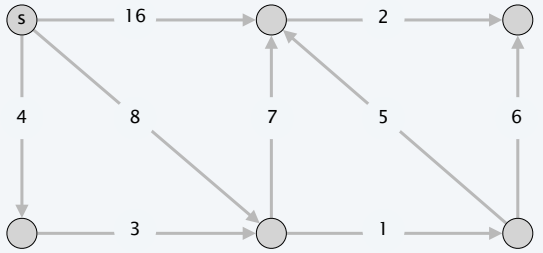

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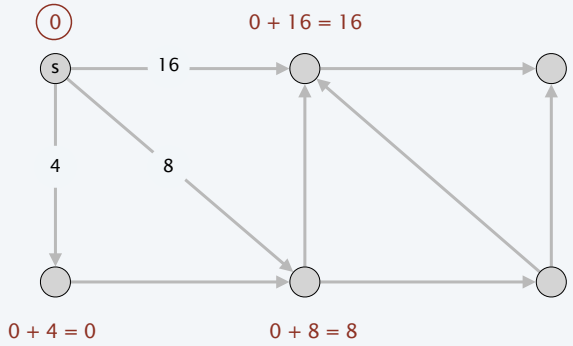

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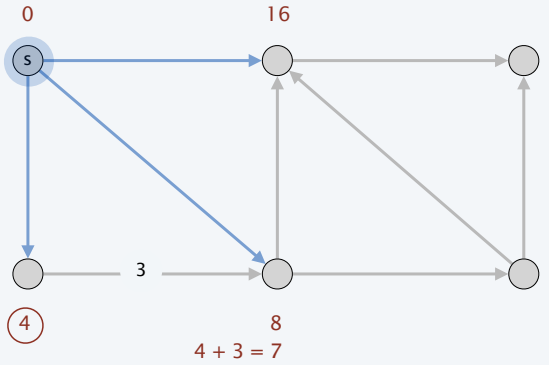

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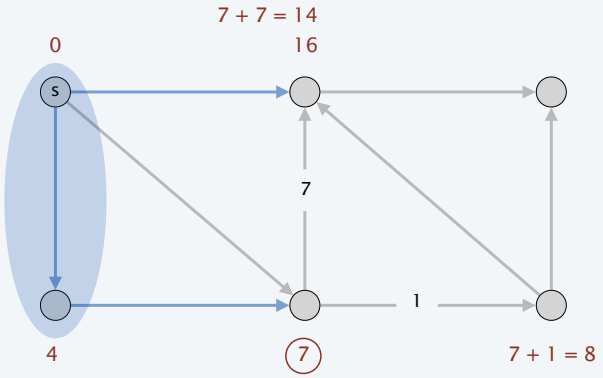

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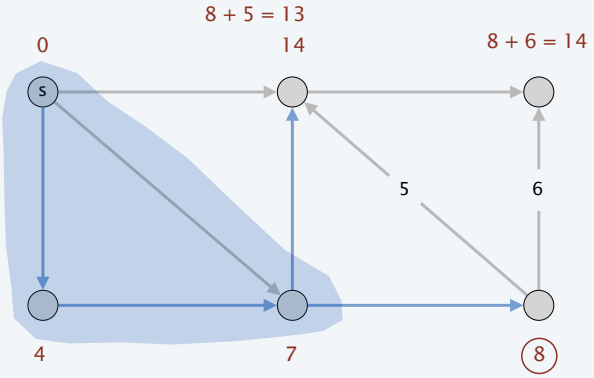

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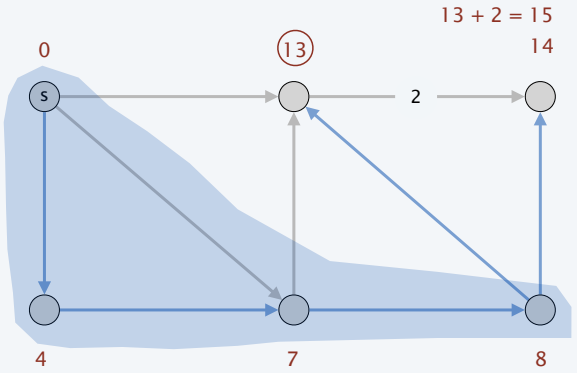

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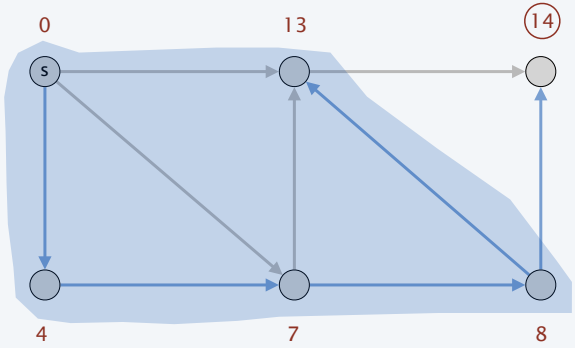

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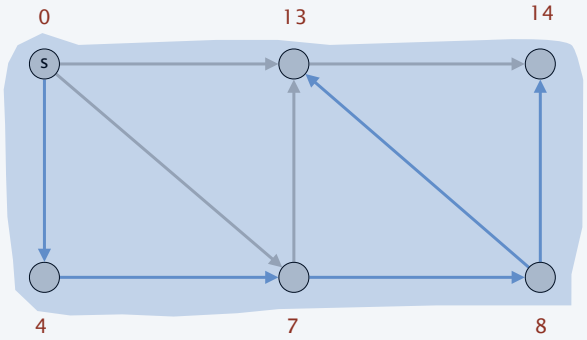

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