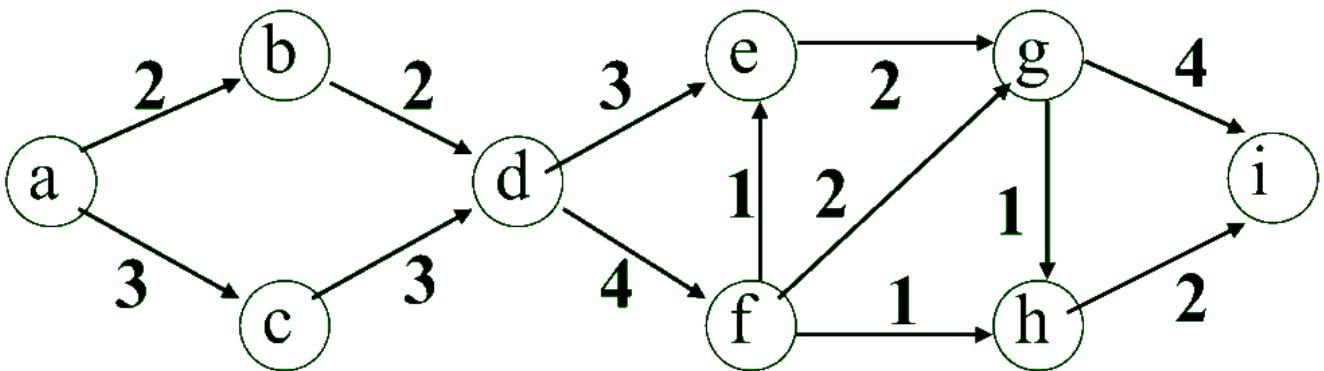


# 路径相关问题

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- ① 以 a 为起始点，则  $A = \{a\}$ ，松弛 a 所连接的到有  $Dis = \{0, 2, 3, \infty, \infty, \infty, \infty, \infty\}$   
 $Path = \{(a), (a \rightarrow b), (a \rightarrow c), (\dots)\}$

- ②  $U \setminus A$  中，b 的 dis 最小，将其松弛并放入 A

$$A = \{a, b\}$$

$$Dis = \{0, 2, 3, 4, \infty, \infty, \infty, \infty\}$$

$$Path = \{(a), (a \rightarrow b), (a \rightarrow c), (a \rightarrow b \rightarrow d), (\dots)\}$$

- ③ c,  $A = \{a, b, c\}$

$$Dis = \{0, 2, 3, 4, \infty, \dots\}$$

$$Path = \{(a), (a \rightarrow b), (a \rightarrow c), (a \rightarrow b \rightarrow d), (\dots)\}$$

- ④ d,  $A = \{a, b, c, d\}$

$$Dis = \{0, 2, 3, 4, 7, 8, \infty, \dots\}$$

$$Path = \{(a), (a \rightarrow b), (a \rightarrow c), (a \rightarrow b \rightarrow d), (a \rightarrow b \rightarrow d \rightarrow e), (a \rightarrow b \rightarrow d \rightarrow f), (\dots)\}$$

⑤ e, A = {a, b, c, d, e}

Dis = {0, 2, 3, 4, 7, 8, 9, ∞...}

Path = {(a), (a → b), (a → c), (a → b → d), (a → b → d → e),  
(a → b → d → f), (a → b → d → e → g), ()...}

⑥ f, A = {a, b, c, d, e, f}

Dis = {0, 2, 3, 4, 7, 8, 9, 9, ∞...}

Path = {(a), (a → b), (a → c), (a → b → d), (a → b → d → e),  
(a → b → d → f), (a → b → d → e → g), (a → b → d → f → h), ()...}

⑦ g, A = {a, b, c, d, e, f, g}

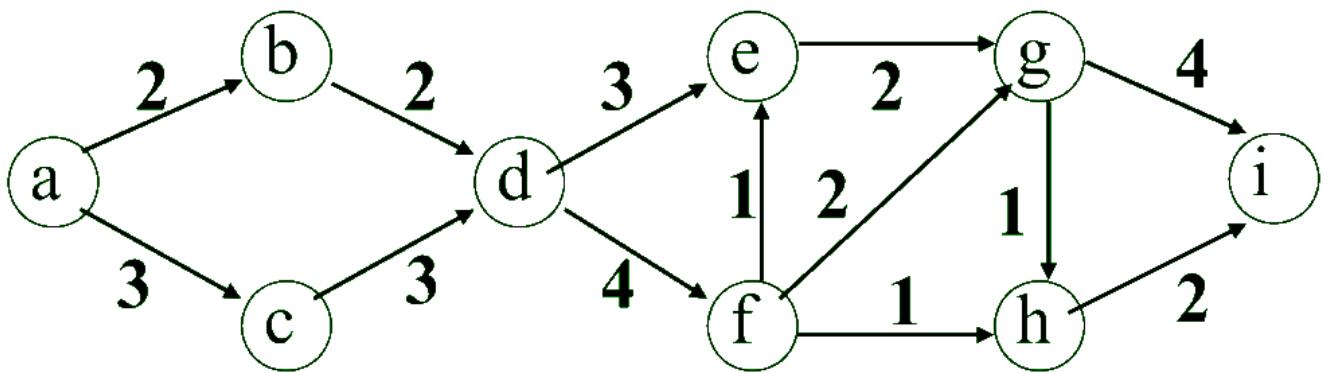
Dis = {0, 2, 3, 4, 7, 8, 9, 9, 13}

Path = {(a), (a → b), (a → c), (a → b → d), (a → b → d → e),  
(a → b → d → f), (a → b → d → e → g), (a → b → d → f → h),  
(a → b → d → e → g → i)}

⑧ h, A = {a, b, c, d, e, f, g, h}

Dis = {0, 2, 3, 4, 7, 8, 9, 9, 11}

Path = {(a), (a → b), (a → c), (a → b → d), (a → b → d → e),  
(a → b → d → f), (a → b → d → e → ·), (a → b → d → f → h),  
(a → b → d → f → h → i)}



拓扑序

abcdfeghi

| Dis      | $IDis$   |
|----------|----------|
| $a = 0$  | $i = 0$  |
| $b = 2$  | $h = 2$  |
| $c = 3$  | $g = 4$  |
| $d = 4$  | $e = 6$  |
| $f = 8$  | $f = 7$  |
| $e = 7$  | $d = 11$ |
| $g = 9$  | $c = 14$ |
| $h = 9$  | $b = 13$ |
| $i = 11$ | $a = 17$ |

本例中，关键路径只有一条

即  $a \rightarrow b \rightarrow d \rightarrow f \rightarrow h \rightarrow i$