



# Homework 13

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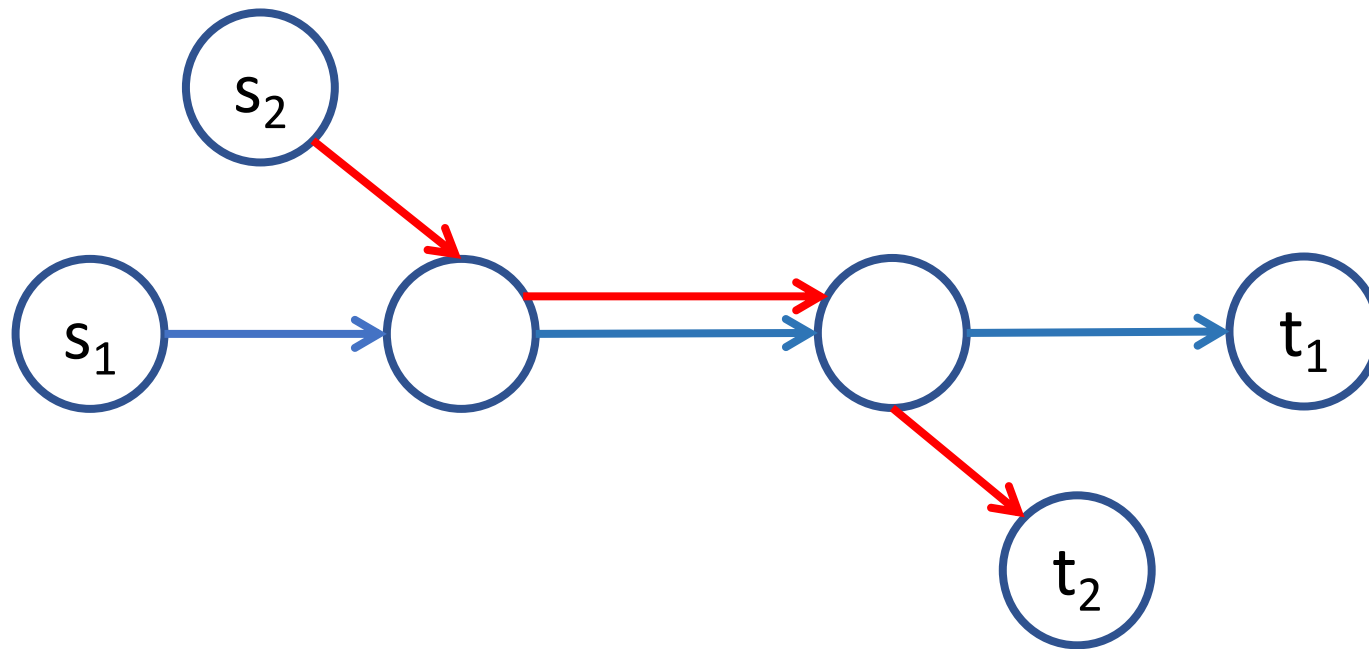
**2020.12.17**

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# Exercise 11-1

- Create an example where the optimal solution is obtained by the greedy algorithm

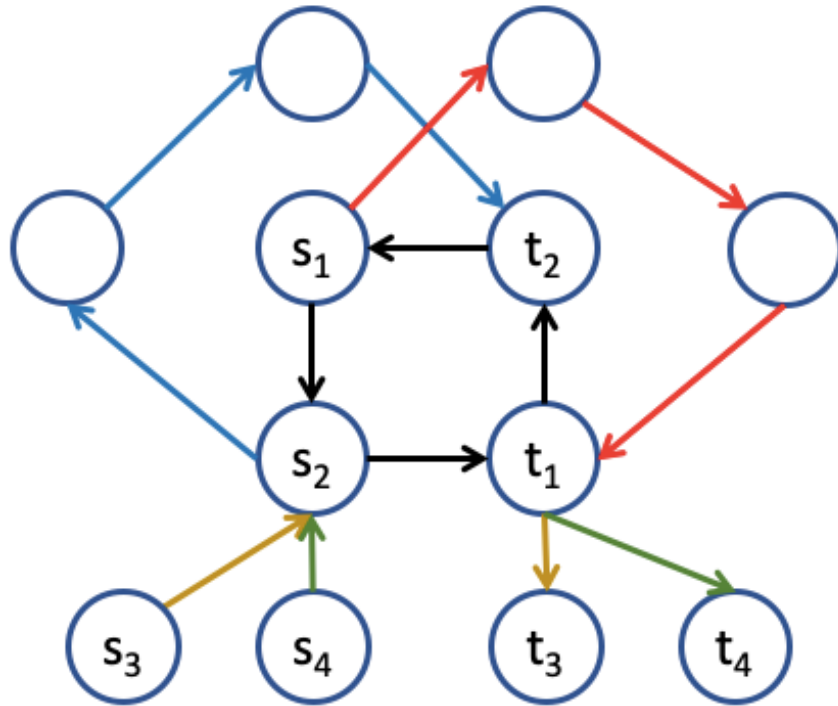


$$|I| = |I^*| = 2$$

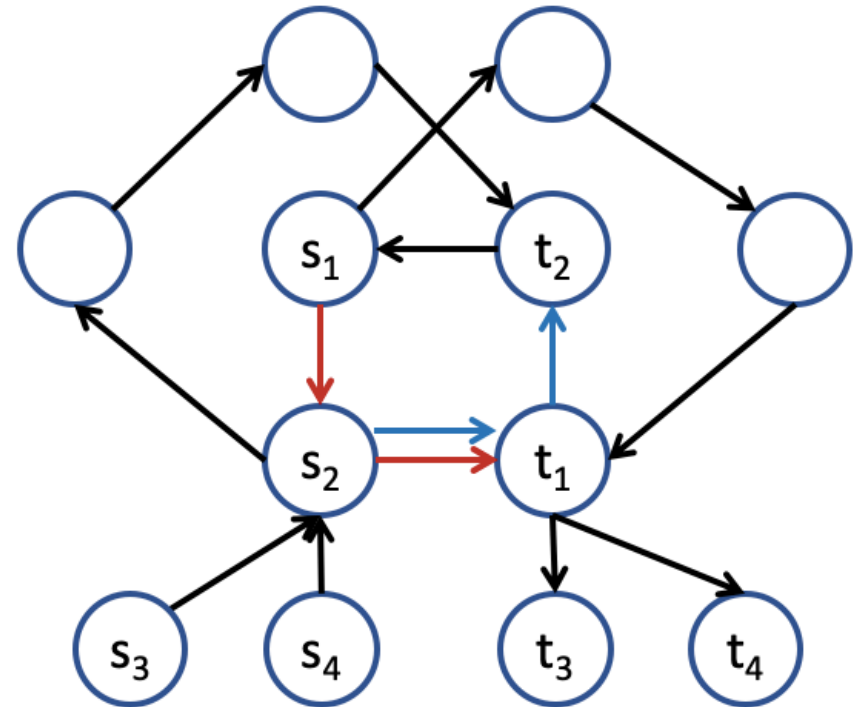


# Exercise 11-1

- Create another example where the greedy algorithm solution  $|I|$  is close to  $|I^*|/(4m^{\frac{1}{3}} + 1)$ .



$$|I^*| = 4$$



$$|I| = 2$$

$$m = 14, m^{1/3} = 2.4, |I^*|/(4m^{\frac{1}{3}} + 1) = 0.4$$



# Thanks!

**Please contact me with email  
if you have any problem**

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**2020.12.17**

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