



CS-C2160 - Theory of Computation, Lecture, 11.1.2022-11.4.2022

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Course feedback

Syllabus

8. Voluntary problem set: Regular expressions

These problems are completely **voluntary** (no bonus points given, either) that one may solve, for instance, before the exam to practise the constructions.

[« 8.5 From automaton to regular expression](#)

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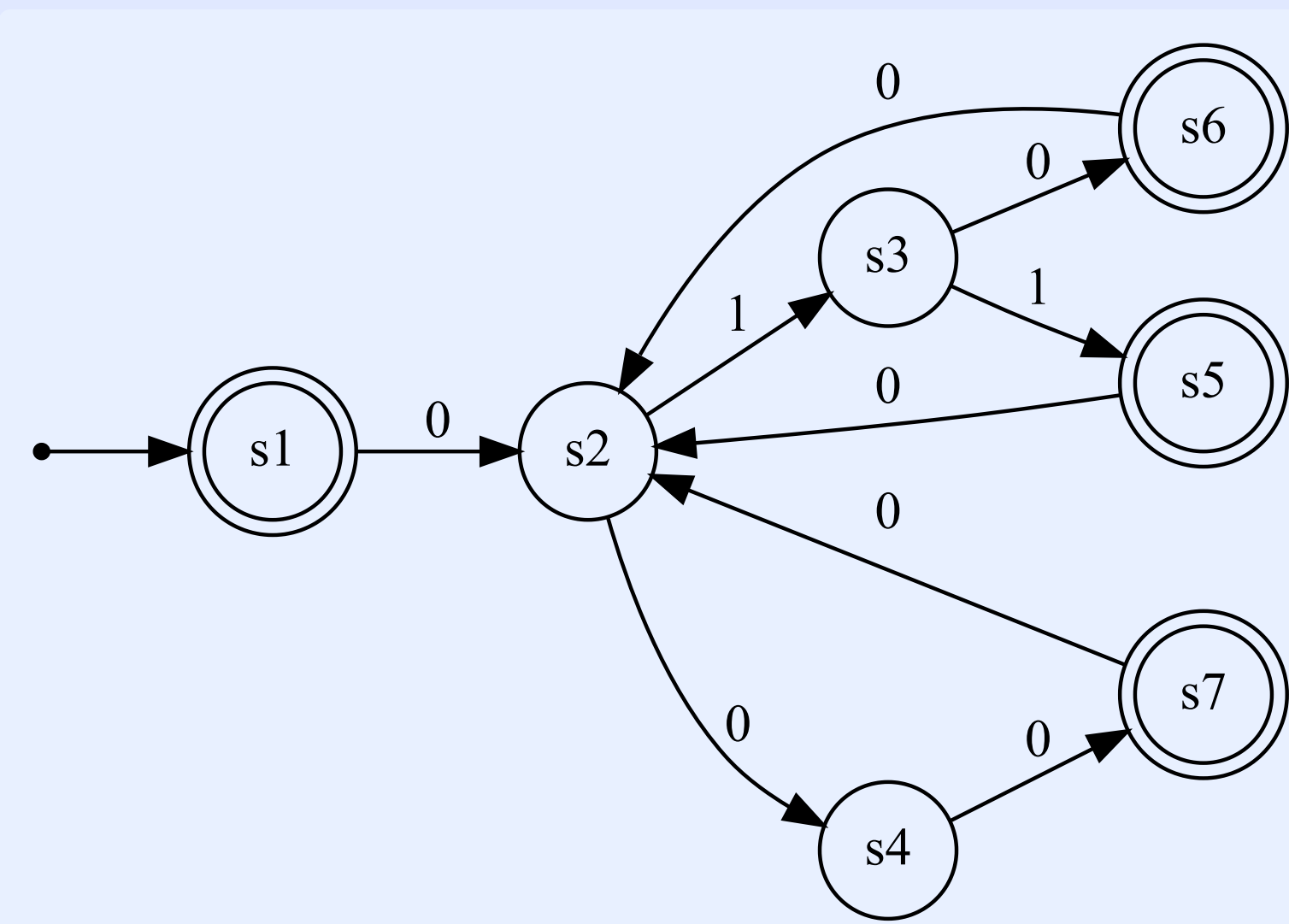
[8.7 From regular expression to minimal automaton »](#)

Exercise description

My submissions **0 / 50** ▾

From automaton to regular expression

Consider the finite automaton



Give a regular expression that describes the language recognised by the automaton.

The syntax for regular expressions is:

- alphabet: a, b, ..., z, 0, 1, ..., 9
- parentheses: (,)
- union: | (the vertical stroke symbol)
- empty string: _ (the underscore symbol) or ϵ (the greek epsilon)
- empty set: @ (the 'at'-symbol) or \emptyset (AltGr + Shift + ö on some keyboards)
- Kleene star: * (the asterisk symbol)

For example, the regular expression `_|aa(bc)*` describes the language $\{\epsilon, aa, aabc, aabcbc, aabcbcbc, \dots\}$ over the alphabet $\{a, b, c\}$.

Your solution:

Earned points

0 / 1

Exercise info

Exercise category

Voluntary exercises

Your submissions

0 / 50

Deadline

Sat, 31 Dec 2022 23:59:00 +0200

Total number of submitters

6

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Previous activity

[◀ 7. Voluntary problem set: Finite automata](#)

Next activity

[9. Voluntary problem set: Context-free grammars ▶](#)



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