

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

This course space end date is set to 16.12.2022 [Search Courses: CS-C2160](#)

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Syllabus

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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.

« 7. Voluntary problem set: Finite automata

Course overview

8.2 Regular expression for a language »

Exercise description

My submissions **2 / 50** ▾

Regular expression for a language

Consider the language $L = \{w \in \{0, 1\}^* \mid w \text{ contains the substring } 0100\}$.

Give a regular expression that describes the language.

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 ∅ (AltGr + Shift + ö on some keyboards)
- Kleene star: * (the asterisk symbol)

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

Your solution:

Submit!

Earned points

1 / 1



Exercise info

Exercise category

Voluntary exercises

Your submissions

2 / 50

Deadline

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

Total number of submitters

22

« 7. Voluntary problem set: Finite automata

Course overview

8.2 Regular expression for a language »

Previous activity

◀ 7. Voluntary problem set: Finite automata

Next activity

9. Voluntary problem set: Context-free grammars ▶



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