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**

? Astra exercises Forums Resources

Course feedback Syllabus

5. Compulsory problem set: Context-free grammars

Course overview

Exercise description | My submissions **6 / 50** ⌄

Chomsky normal form for a grammar

Consider the context-free grammar:

```
S -> Tbb
T -> aTb | V
V -> aU | bU
U -> aW | bW
W -> a | b
```

Give a context-free grammar *in Chomsky normal form* that generates the same language.

Enter the grammar in the space below, one production on each line. Use this syntax:

- production: variable -> string1 | string2 ... | stringn
- variables: capital letters A,B,...,Z
- terminals: lower case letters a,b,...,z and numbers 0,1,...,9
- empty string: _ (the underscore symbol)
- start symbol: the first variable in the grammar

For instance, the grammar

```
A -> aAa | B
B -> bB | _
```

generates the language $\{a^n b^k a^n \mid n \geq 0 \text{ and } k \geq 0\}$.

Your solution:

[text area]

Submit!

Earned points

1 / 1

[green progress bar]

Exercise info

Exercise category
Compulsory exercises

Your submissions
6 / 50

Points required to pass
1

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

Total number of submitters
153

Course overview

Previous activity

◄ 4. Compulsory problem set: Regular expressions

Next activity

6. Voluntary problem set: Some small brain teasers ►

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