

Computer Language Processing

Exercise Sheet 01 - Solutions

September 29, 2022

The solutions of all exercises except exercise 2.16 can be found [here](#).

Exercise 2.16 | Prefixes

a)

- $\text{prefixes}(\varepsilon) = \varepsilon$
- $\text{prefixes}(a) = a^?$ where a is an **alphabet symbol**
- $\text{prefixes}(s \mid t) = \text{prefixes}(s) \mid \text{prefixes}(t)$
- $\text{prefixes}(st) = \text{prefixes}(s) \mid (s \text{ prefixes}(t))$
- $\text{prefixes}(s^*) = s^* \text{ prefixes}(t)$
- $\text{prefixes}(s^+) = s^* \text{ prefixes}(t)$

b) $\text{prefixes}(ab^*c) = (ab^*c^?)^?$