

Extramaterial för regex-uppgift i INDA++

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Pseudokod för beräkning av ε -closure

Algorithm 1: Epsilon closure

```
1: function EPSILONCLOSURE( $V, E$ )
2:    $C \leftarrow$  Ny lista av  $|V|$  st. tomma mängder
3:
4:   for  $v \in V$  do
5:      $C[v] \leftarrow \{v\}$ 
6:   end
7:
8:   changed  $\leftarrow$  true
9:   while changed do
10:    changed  $\leftarrow$  false
11:    for (from, to, sym)  $\in E$  do
12:      if sym =  $\varepsilon$  and  $C[\text{to}] \setminus C[\text{from}] \neq \emptyset$  then
13:         $C[\text{from}] \leftarrow C[\text{from}] \cup C[\text{to}]$ 
14:        changed  $\leftarrow$  true
15:      end
16:    end
17:  end
18:
19:  return  $C$ 
20: end
```

Pseudokod för översättning av ε -NFA till NFA

Algorithm 2: Epsilon NFA to NFA

```
1: function EPSILONNFATONFA( $V, E$ )
2:    $C \leftarrow$  EpsilonClosure( $V, E$ )
3:    $E_{\text{new}} \leftarrow \emptyset$ 
4:
5:   for (from, to, sym)  $\in E$  do
6:     if sym  $\neq \varepsilon$  then
7:       for  $c \in C[\text{to}]$  do
8:          $E_{\text{new}} \leftarrow E_{\text{new}} \cup \{(\text{from}, c, \text{sym})\}$ 
9:       end
10:    end
11:  end
12:
13:  return ( $V, E_{\text{new}}$ )
14: end
```
