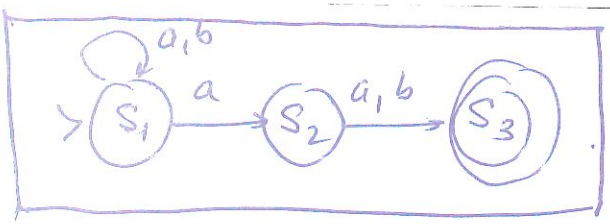
$\mathcal{A}_{NDEA}$:



$\mathcal{A}_{DEA}$ mit $L(\mathcal{A}_{DEA}) = L(\mathcal{A}_{NDEA})$.

① Startzustand : Menge der alten Startzustand

$I_{DEA} = \{s_1\}$.

② Schritt 1 :

$\Delta(s_1, a) = \{s_1, s_2\} \Rightarrow$ neuer Zustand $\{s_1, s_2\}$

$\delta_{\mathcal{A}_{DEA}}(\{s_1\}, a) = \{s_1, s_2\}$.

$\Delta(s_1, b) = \{s_1\} \Rightarrow \delta_{\mathcal{A}_{DEA}}(\{s_1\}, b) = \{s_1\}$.

Schritt 2 :

$\Delta(s_1, a) = \{s_1, s_2\}$
$\Delta(s_2, a) = \{s_3\}$
$\Rightarrow$ neuer Zustand $\{s_1, s_2, s_3\}$

$\delta_{\mathcal{A}_{DEA}}(\{s_1, s_2\}, a) = \{s_1, s_2, s_3\}$.

$\Delta(s_1, b) = \{s_1\}$
$\Delta(s_2, b) = \{s_3\}$
$\Rightarrow$ neuer Zustand $\{s_1, s_3\}$

$\delta_{\mathcal{A}_{DEA}}(\{s_1, s_2\}, b) = \{s_1, s_3\}$.

Schritt 3 a)

$\Delta(s_1, a) = \{s_1, s_2\}$
$\Delta(s_2, a) = \{s_3\}$
$\Delta(s_3, a) = \phi$
$\Rightarrow \delta_{\mathcal{A}_{DEA}}(\{s_1, s_2, s_3\}, a) = \{s_1, s_2, s_3\}$.

$\Delta(s_1, b) = \{s_1\}$
$\Delta(s_2, b) = \{s_3\}$
$\Delta(s_3, b) = \phi$
$\Rightarrow \delta_{\mathcal{A}_{DEA}}(\{s_1, s_2, s_3\}, b) = \{s_1, s_3\}$.

Schritt 3 b)

$\Delta(s_1, a) = \{s_1, s_2\}$
$\Delta(s_3, a) = \phi$
$\Rightarrow \delta_{\mathcal{A}_{DEA}}(\{s_1, s_3\}, a) = \{s_1, s_2\}$

$\Delta(s_1, b) = \{s_1\}$
$\Delta(s_3, b) = \phi$
$\Rightarrow \delta_{\mathcal{A}_{DEA}}(\{s_1, s_3\}, b) = \{s_1\}$.

$\mathcal{A}_{DEA}$: