Example: Minimal DFA $NFA \rightarrow DFA$ ϵ closure / composite states

"The DFA uses its state to keep track of all possible states the NFA can be in after reading each input symbol."

Algorithm Subset construction: Constructing a DFA from an NFA

Input An NFA N

Output: A DFA D accepting the same language

Goal: "Each DFA state is a set of NFA states and we construct D-tran so that D will simulate in parallel all possible moves N can make on a given input string."

Method. Construct a transition table D-tran for D. Apply ϵ closure and move methods,

Table 1: default

ϵ-closure(s)	Set of NFA states reachable from NFA state s on ϵ-transitions alone
ϵ -closure(T)	Set of NFA states reachable from some NFA state $s \in T$ on ϵ-transitions alone
$move(T, a)$	Set of NFA states to which there is a transition on input symbol a from some NFA state $s \in T$