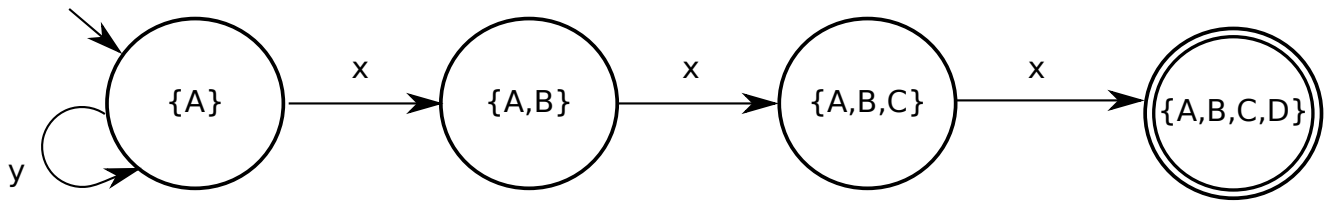
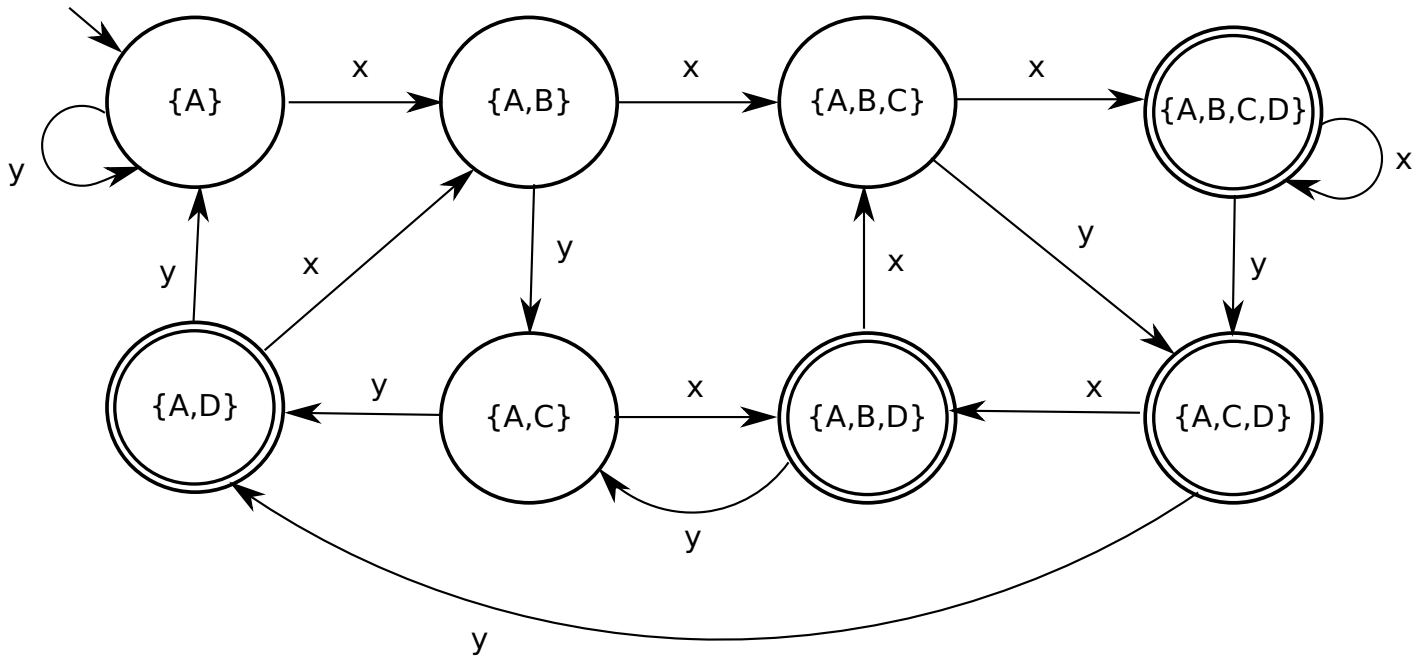


Initial NFA



Corresponding DFA



It's interesting in this particular case that each state intuitively represents a configuration of the last 3 characters seen:

state {A} = none of the last 3 are x (i.e 3-character *suffix* of the string seen so far is yyy)

state {A,B} = suffix xyy

state {A,B,C} = suffix xxy

state {A,B,C,D} = suffix xxx

state {A,D} = suffix xyy

state {A,C} = suffix yxy)

state {A,B,D} = suffix xyx

state {A,C,D} = suffix xyx

To build the DFA:

Add an edge from state α on character c to state β if β represents the union of states that all states in α could possibly transition to on character c