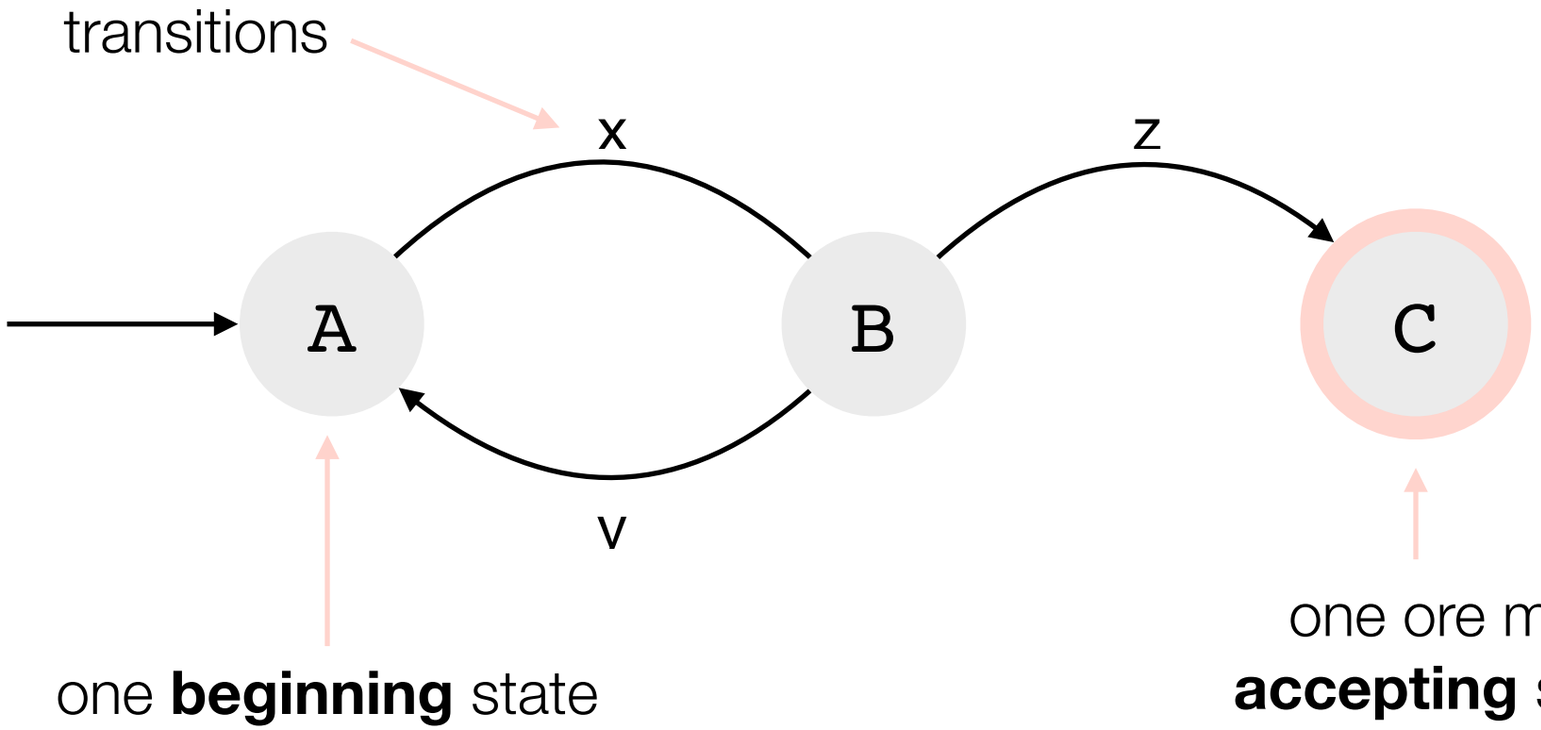
Specification and Implementation

- **Specification**
  The specification of valid symbols is a regular expression written in EBNF. It is easier to reason about the correctness of regular expression and it is expressive enough. The number of valid symbols is infinite and their size is unbound.

- **Implementation**
  The scanner implements this specification using a finite state machine (FSM), a computational model, that recognizes/accepts the set of regular expressions. The implementation is simple and can be done very efficiently.

FSM



- Transitions describe how to get from one state to another.
- E.x. When in state `B` the condition `z` (may be "reading z") is true, a move to state `C` happens.

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