1

A **finite automaton** (FA) is a simple idealized machine used to recognize patterns within input taken from some character set (or alphabet) C. The job of an FA is to accept or reject an input depending on whether the pattern defined by the FA occurs in the input. A **finite automaton** consists of: a **finite** set S of N states.

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**DFA**

DFA refers to deterministic finite automata. Deterministic refers to the uniqueness of the computation. In the DFA, the machine goes to one state only for a particular input character. DFA does not accept the null move.

**NFA**NFA stands for non-deterministic finite automata. It is used to transmit any number of states for a particular input. It can accept the null move.

