

$$D=(Q, \Sigma, \delta, q_0, F)$$

States

$$Q=\{q_0, q_1, q_2, q_3, q_4, q_5\}$$

$$F=\{q_5\}$$

$q_0$  : "open" is entered now (ignore case)

$q_1$  : "unlock" has been entered before (ignore case)

$q_2$  : "c" has been entered before (ignore case)

$q_3$  : "m" has been entered before (ignore case)

$q_4$  : "w"  $\vee$  "up"  $\vee$  "s"  $\vee$  "down"  $\vee$  "a"  $\vee$  "left"  $\vee$  "d"  $\vee$  "right"  
has been entered before (ignore case)

$q_5$  : accept state

Alphabet

$$\Sigma=\{1,0\}$$

Transition function

$\delta$  : transition function

Language

$$L(D)=\{w \in \{0,1\}^* \mid w \text{ ends in } 11111\}$$

