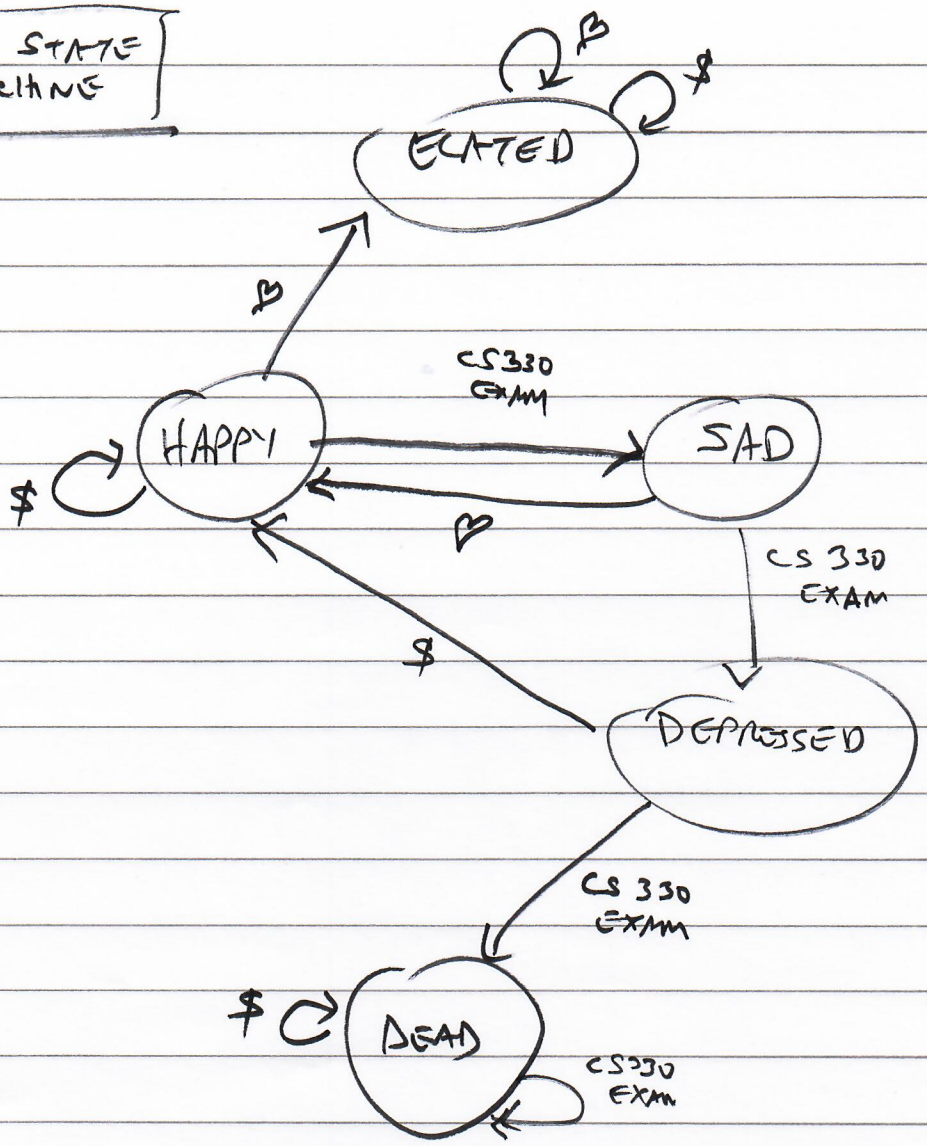
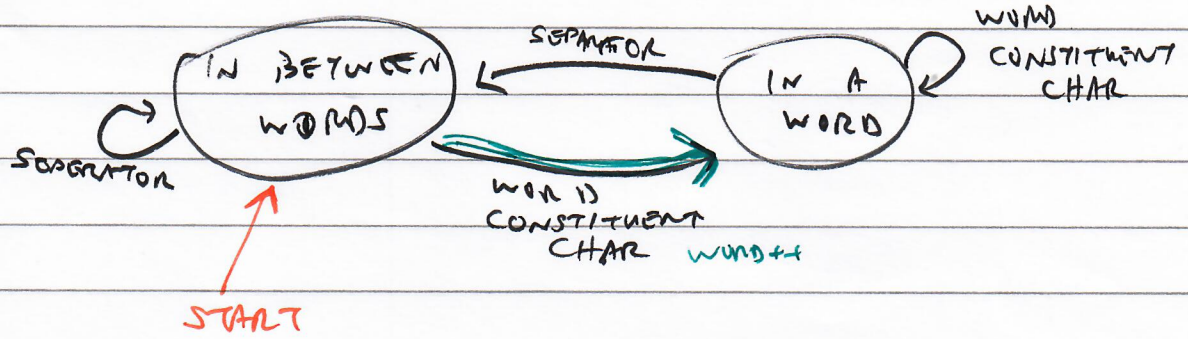
FINITE STATE MACHINE

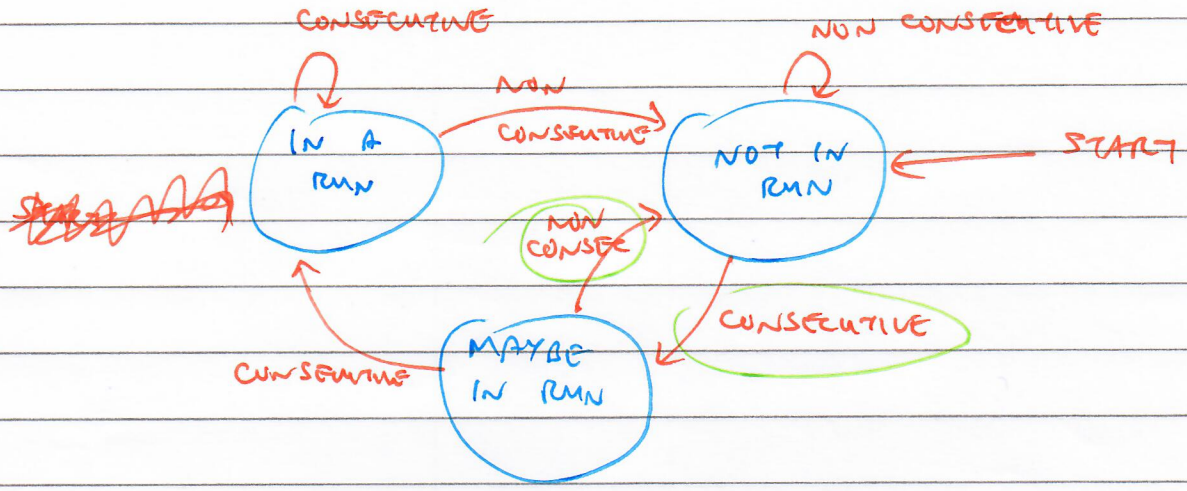


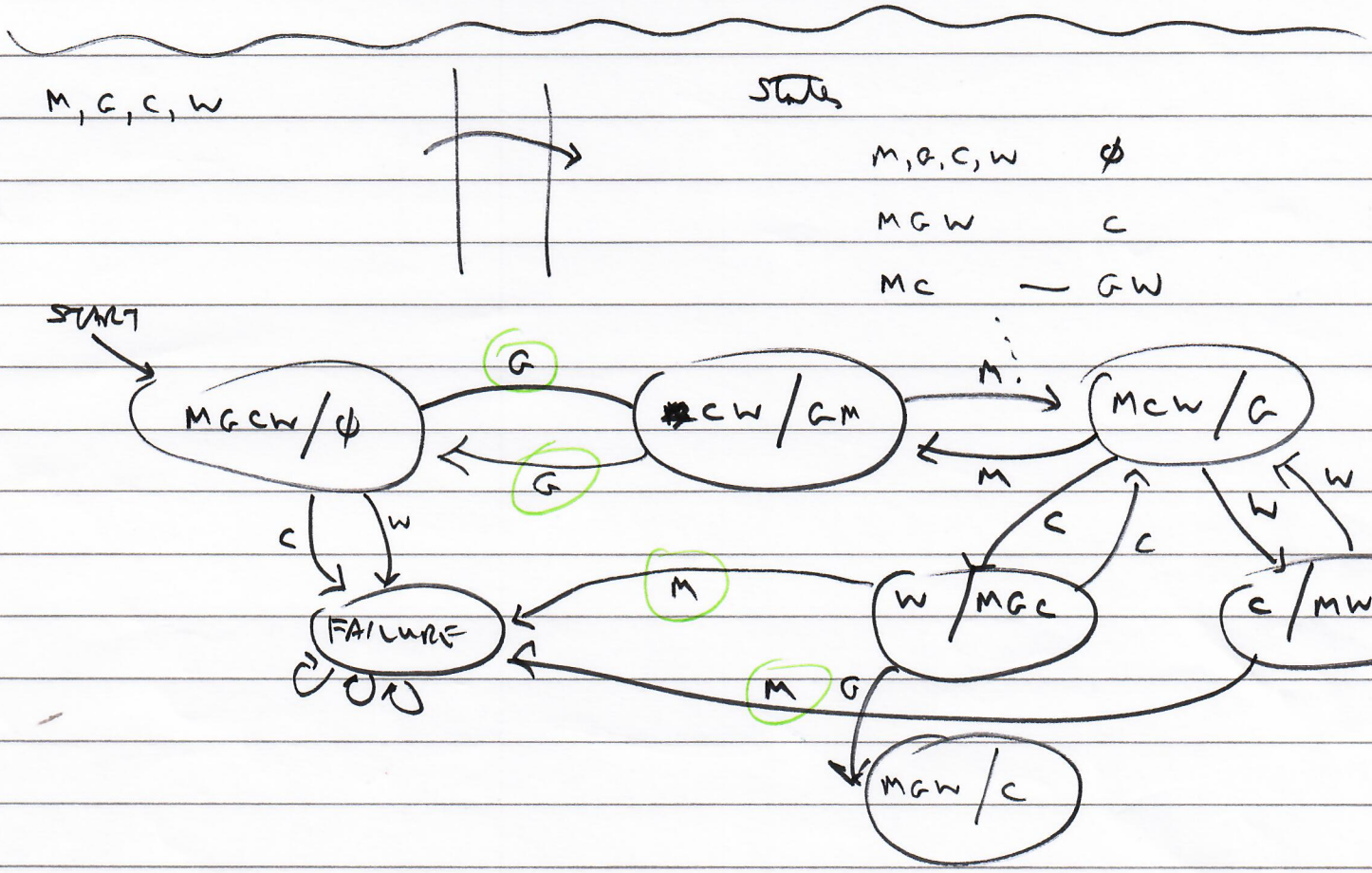
WC — counts lines, characters, words



5, 6, 7, 9, 12, 13, 17, 18, 19, 20, 21, 26, 30, 31, 32

→ 5-7, 9, 12, 13, 17-21, 26, 30-32

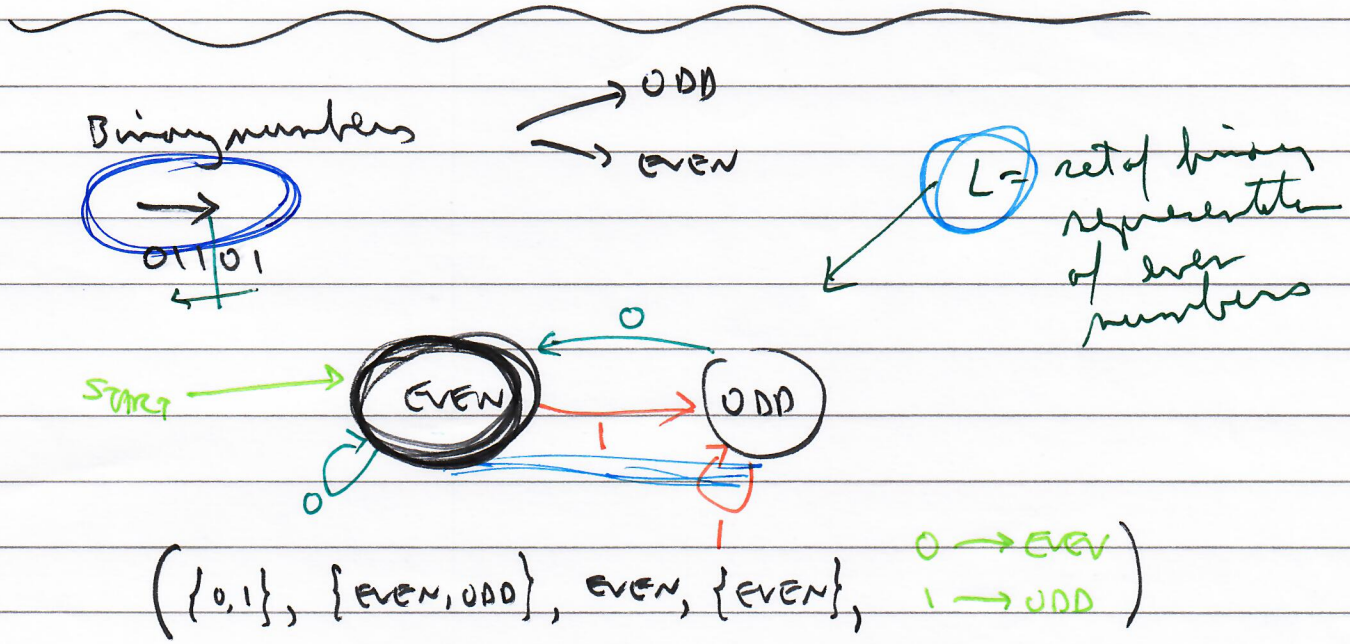


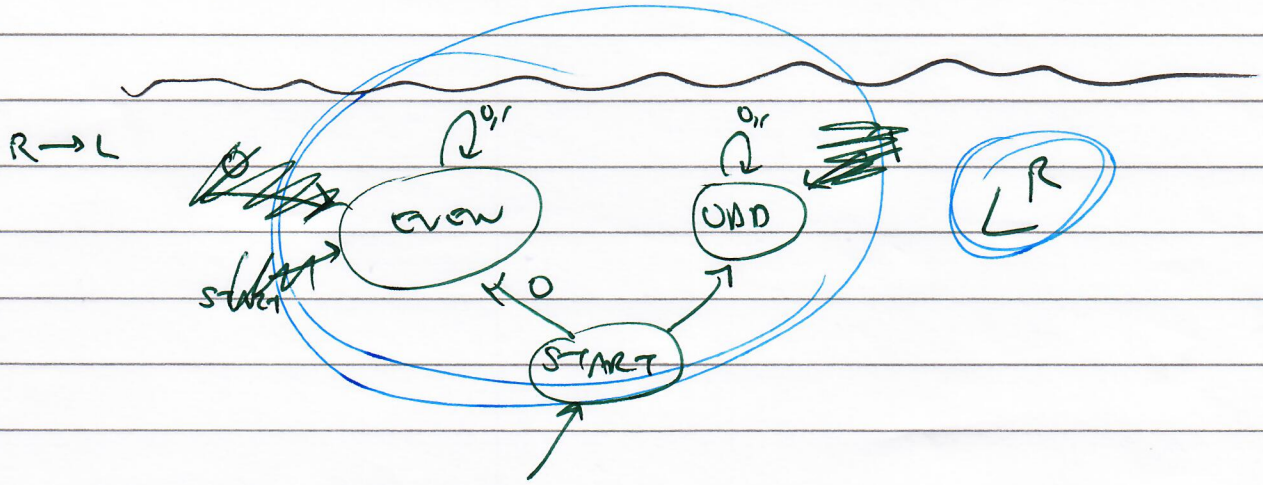


FSM – Mathematical object

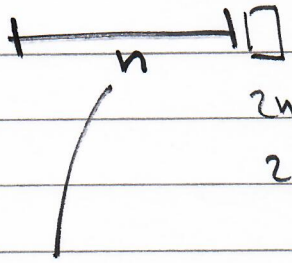
- Σ – FINITE set of input symbols
- S – FINITE set of states
- $s_0 \in S$ start state
- $F \subseteq S$ final states
- $\delta : S \times \Sigma \to S$ transition function (next state function)

$(\Sigma, S, s_0, F, \delta)$





Multiples of 3 ↳2 in binary



multiple of 3

$3k+1$

$3k'+2$