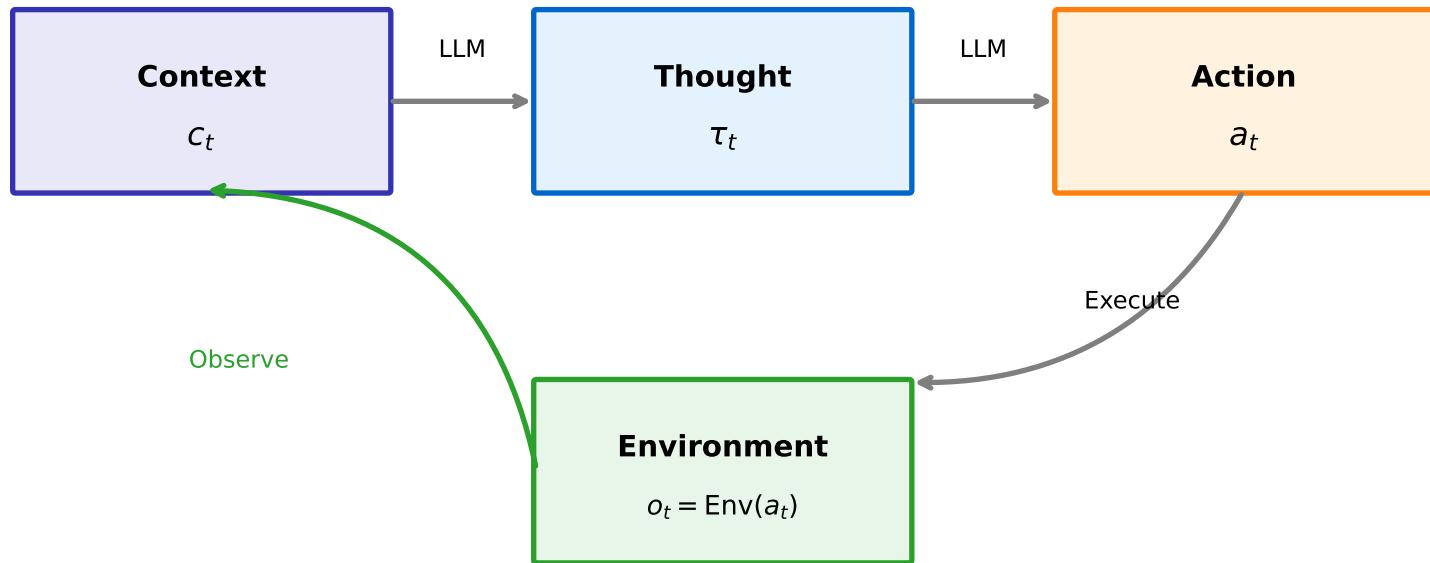


The Agent Loop: Formal Definition



Agent Loop Equations

1. Generate Thought: $\tau_t = \text{LLM}(c_t, h_{<t})$
2. Select Action: $a_t = \text{LLM}(\tau_t, h_{<t})$
3. Execute & Observe: $o_t = \text{Env}(a_t)$

History: $h_t = (c_0, \tau_0, a_0, o_0, \dots, o_{t-1})$

Terminate: $a_t = \text{FINISH}$