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This program is about a **Model-Based Reflex Agent** that controls the room temperature. The agent has a fixed desired temperature and makes decisions based on the current temperature of different rooms. Unlike a simple reflex agent, this one also remembers the **previous action** it took, so it does not repeatedly turn the AC on or off unnecessarily.

1. **Initialization (\_\_init\_\_ method)**
   * When the agent is created, we pass a fixed temperature (like 16°C).
   * The agent also sets up a memory called previous\_action, which starts as None because no action has been taken yet.
2. **Sensor (sensor method)**
   * This function receives the current room temperature.
   * For example, if the kitchen has 34°C, the sensor stores that as the current\_temp.
3. **Performance (performance method)**
   * The agent compares the current temperature with the fixed temperature.
   * If the room is hotter than the fixed value, the action is **“Turn on the AC.”**
   * If the room is cooler or equal, the action is **“Turn off the AC.”**
   * Now comes the special part of a **model-based agent**:
     + It checks what the **previous action** was.
     + If the new action is the same as the previous one, the agent will not repeat it. Instead, it says **“No change (keep current state).”**
     + If the action is different, it updates previous\_action and performs it.
4. **Actuator (actuator method)**
   * This function prints the result for the user.
   * Example: If the current temperature is 34, it might print:  
     34 => Action: Turn on the AC
5. **Loop Through Rooms**
   * We have a dictionary of rooms with their temperatures.
   * For each room, the agent reads the temperature (using sensor) and then decides what to do (using actuator).

