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**Section: 3A**

**Subject: AI LAB**

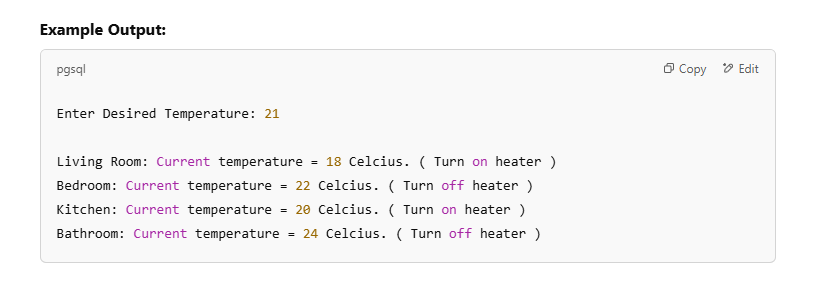
**Documentation:**

**Lab 3 Task: Model-Based Reflex Agent**

**Code Explanation:**

1. **Class Definition (Model\_Based\_Relax\_Agent):**
   * This class models an agent that controls a heater based on the current temperature.
   * It **stores** the desired temperature (desired\_temp).
   * It **remembers** the last action (previous\_action) to prevent unnecessary switching.
2. **Methods:**
   * **perceive(current\_temp):** Stores the sensed temperature (though unused in logic).
   * **act(current\_temp):** 
     + If the temperature is **below** the desired level **and** the last action was not "ON," it **turns the heater ON**.
     + If the temperature is **equal or above** the desired level **and** the last action was not "OFF," it **turns the heater OFF**.
     + Otherwise, **no action** is performed.
3. **Room Temperature Data (rooms Dictionary)**
   * A dictionary stores **room names** as keys and their **current temperatures** as values.
4. **User Input & Execution:**
   * The user enters a desired\_temp.
   * The agent processes each room’s temperature and determines whether to turn the heater **ON or OFF**.
   * The results are printed for each room.

**Output:**

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