Model-Based Agent

This Python script defines a simple model-based reflex agent for controlling room temperatures.

1. **Class `Reflex\_Agents`**:

* **`\_\_init\_\_` method**: Initializes the agent with a required temperature and sets the previous action to `None`.
* **`perceive` method**: Takes the current temperature as input and returns it (though it's not used in the current implementation).
* **`act` method**: Determines the action based on the current temperature:
* If the current temperature is below the required temperature, it returns "Turn on the heater".
* If the current temperature is at or above the required temperature, it returns "Turn off heater".
* If the action is the same as the previous action, it returns "No change".
* Updates the previous action to the current action.

2. **Function `user\_temp`**:

* Prompts the user to enter the number of rooms.
* For each room, it collects the room name and current temperature.
* Returns a dictionary with room names as keys and their corresponding temperatures as values.

3. **Function `main`**:

* Greets the user and prompts for the required temperature for the rooms.
* Calls `user\_temp` to get the current temperatures of the rooms.
* Creates an instance of `Reflex\_Agents` with the required temperature.
* Iterates over each room, uses the agent to determine the action based on the current temperature and prints the result.

The script runs the `main` function, which orchestrates the interaction with the user and the temperature control logic for each room.