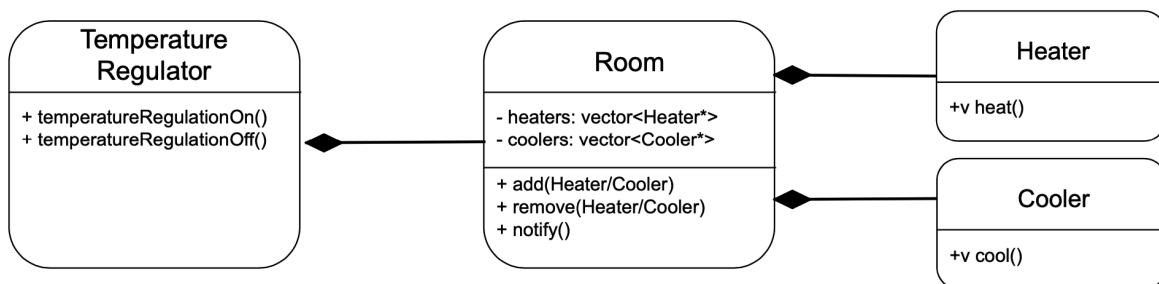


Up until now, the Room has been responsible for regulating the temperature, which is fine for a simple control system. However, as more regulation functions might be added, the system will become difficult to manage. Instead of modifying the Room class each time a new feature is added, it's better to separate the responsibility of temperature regulation into its own class.

To achieve this, we can introduce a TemperatureRegulator class. This design follows the single responsibility principle, where each class has its own distinct role. The Room class can focus on managing the physical properties of the room, while the TemperatureRegulator class can handle the logic for regulating the temperature.



By separating these responsibilities, we can achieve better code modularity and maintainability. Future changes to the temperature regulation logic can be made without affecting the Room class, and vice versa. This allows for more flexible and scalable code, making it easier to adapt to changing requirements.