

Smart Home Simulator

(OOPS Project in C++)

Group 12
B.Tech, 2nd Year

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY VADODARA
International Campus - Diu

November 2025



Problem Statement

- To create a modular, extensible smart home simulator in C++.
- Simulate appliances, sensors, doors, vehicles, media, and custom devices.
- Demonstrate advanced OOP: inheritance, encapsulation, polymorphism, file handling.
- Enable CLI interaction, room/device control, grouping, automation, scheduling.
- Allow future extension: user-defined device types with minimal code changes.

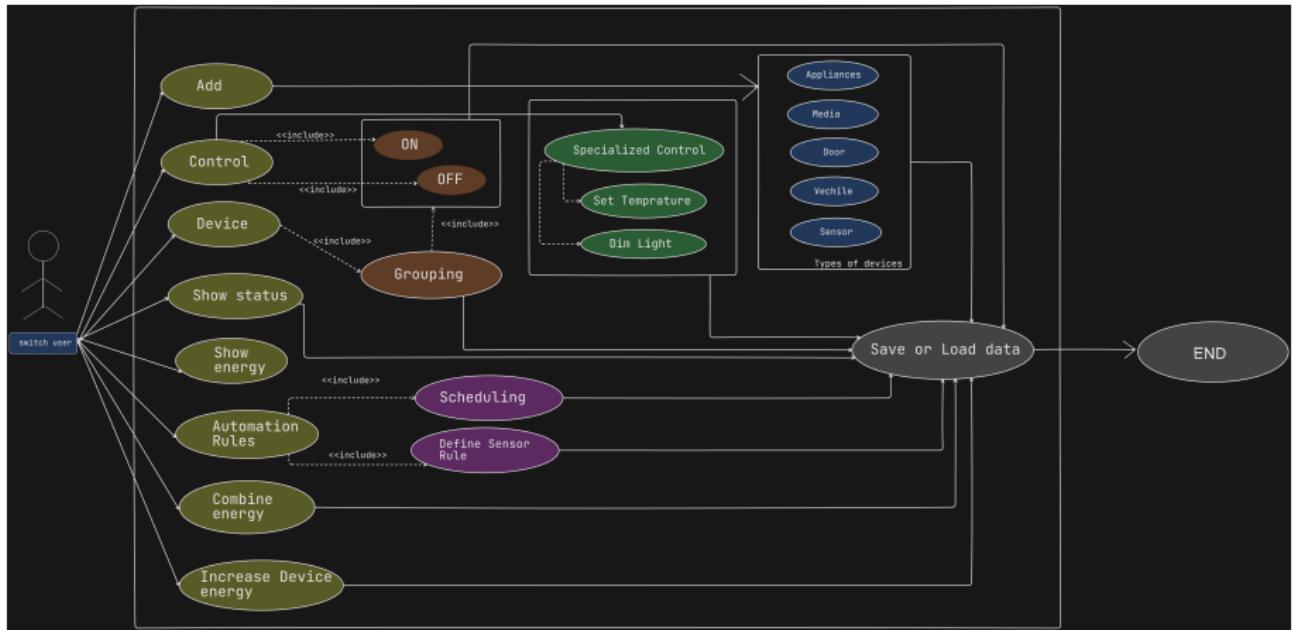


Class Diagram (UML)

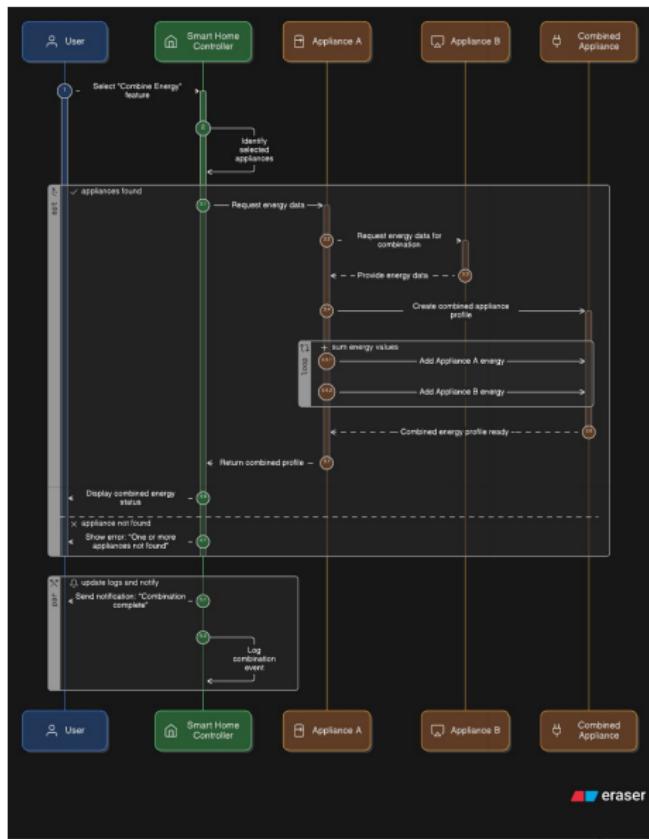
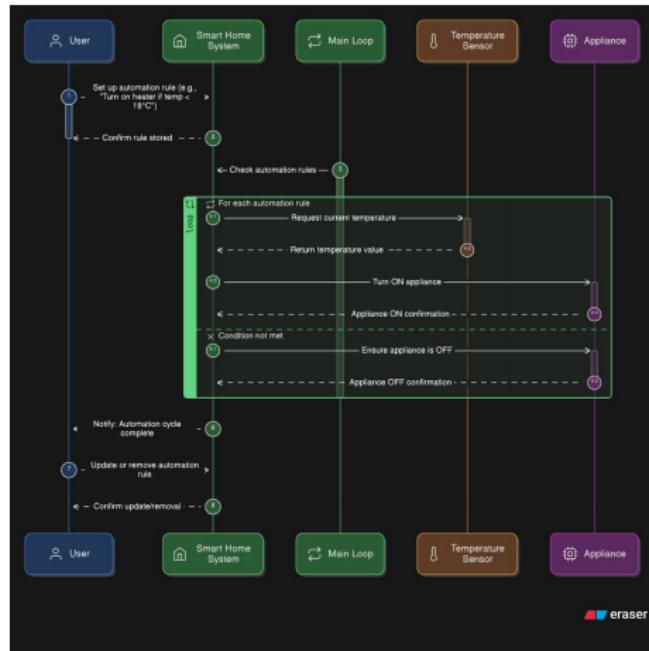
UNABLE TO ADD HERE
DUE TO BIGGER SIZE OF THE DIAGRAM
PLS REFER FROM FOLDER OR GITHUB



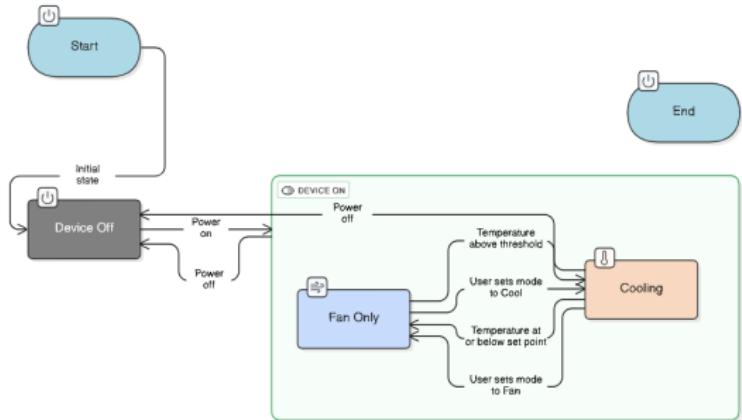
Use Case Diagram



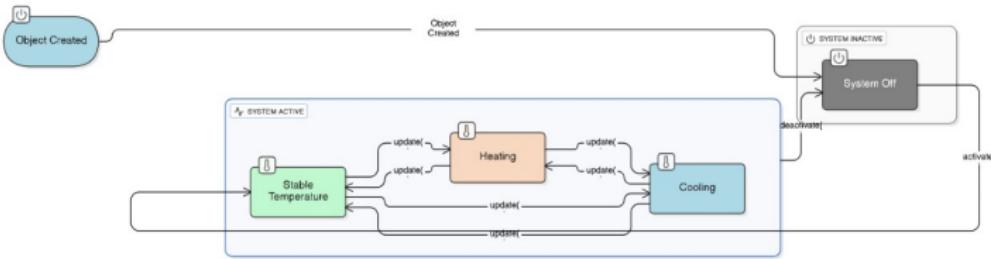
Sequence Diagram



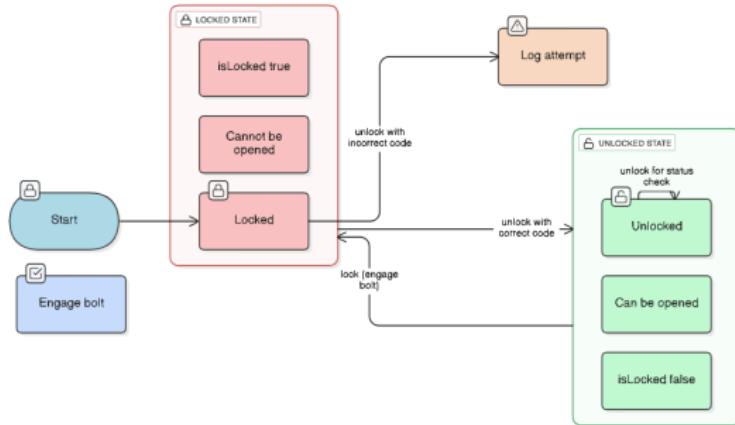
State Diagram I



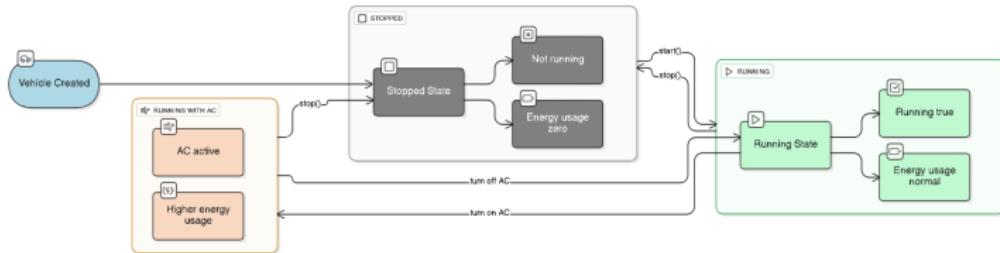
eraser



State Diagram II



eraser



Questions?

Thank you!
Questions or discussion?

