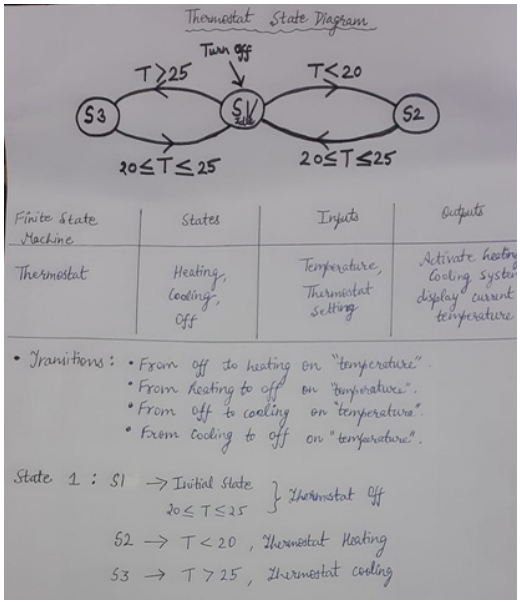
Thermostat

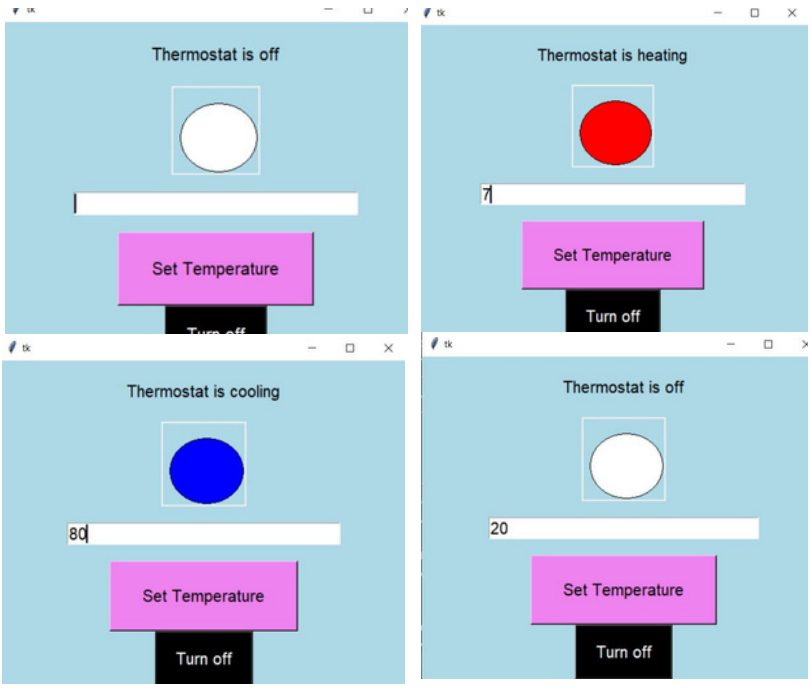
Aishani Goyal , Riya Khandelwal
(2022BTech007) (2022BTech087)

Problem Statement : To design a thermostat (FSM), a device to detect temperature changes of a physical system and performs actions so that the system's temperature is maintained near a desired setpoint.

State Diagram



User Interface



Salient Features

- In a system including relays, valves, switches, etc., the thermostat generates signals, usually electrical, when the temperature exceeds or falls below the desired value.
- Thermostats are used in any device or system that heats or cools to a setpoint temperature. Examples include air conditioners, water heaters, ovens and many more.

References

https://www.explainthatstuff.com/thermostats.html

https://brilliant.org/wiki/finite-state-machines/

https://www.youtube.com/watch?v=-Q4lm8eYulw&list=PLu0W_9lII9ajLcqRcj4PoEihkukF_OTzA

Role of Team Members

- Aishani Goyal - Making of State Diagram, Error Checking and support in code implementation and suggesting changes in the final output when and where required.
- Riya Khandelwal - Idea Generation, Code Implementation and finding out new ways to get better output.