Thermostat Control System:

a. This project shows my ability to develop an embedded system that controls hardware components like sensors and LEDs using GPIO, I2C, and UART. The main goal was to create a system that manages temperature readings and adjusts set-points in real-time. It highlights my understanding of hardware-software integration and how to solve real-world problems with these tools.

Task Scheduler Implementation:

b. I implemented a custom task scheduler to handle multiple tasks, such as reading temperature, adjusting set-points, and sending data to the server. This artifact shows my ability to manage tasks under timing constraints using a state machine, ensuring the system runs efficiently without overloading resources.

These two artifacts best showcase the range of my abilities, from hardware interfacing to real-time task management, and demonstrate my growth in developing embedded systems.