

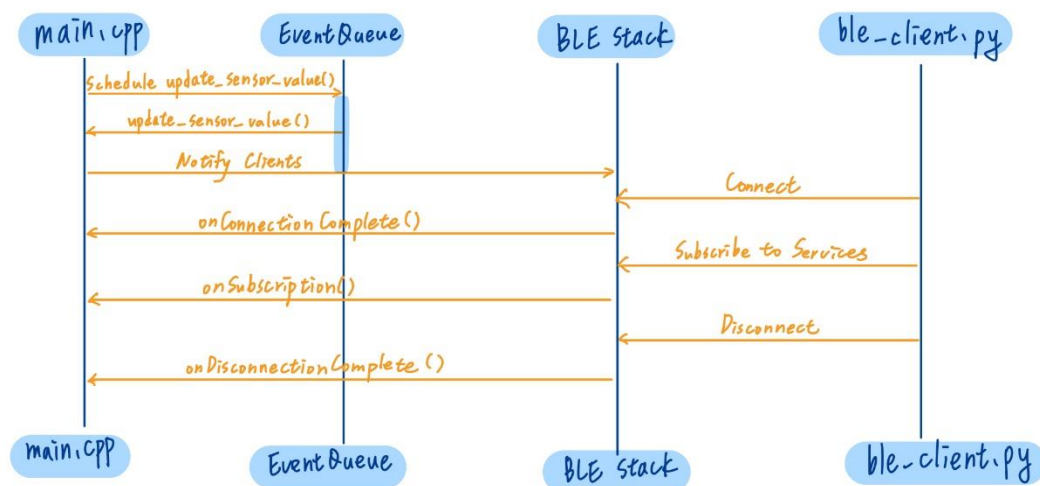
Lab4 report

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Code: <https://github.com/stanthemaker/EmbeddedSystem/tree/main/hw4>

Draw an execution sequence chart of the program and also describe how an EventQueue object play its role in the program

EventQueue in this program is used to manage and execute events or tasks related to the Bluetooth Low Energy (BLE) operation, such as updating sensor values, handling BLE events, initiating advertising, and dispatching these tasks in a non-blocking manner.



1. Handling Periodic Sensor Updates: The eventQueue is responsible for triggering the periodic updates of sensor values. It uses **call_every** to execute a function (**update_sensor_value()**) every 1000 milliseconds.
2. Dispatching BLE Events: It is used to dispatch BLE events to process, such as initialization completion, connection events, and disconnection events. This ensures these events are processed within the context of the event queue rather than directly in the main execution thread.
3. Non-blocking Execution: By using `dispatch_forever()`, the event queue ensures continuous processing of scheduled tasks without blocking the main thread.

Personal report with some discussions and experiences sharing

在這次的作業要自己寫程式，取代手機上的 app，過程中有很多挑戰，像是要如何 parse 從 STM32 傳回來的資料等等。最後作業要畫出程式的 flow chart，也讓我更了解其中的運作模式。