We implemented our Smart Home System using Javascript and intel XDK.

We built our own framework to map our design.

The mapping between our design and implementation is explained below:
Our Event Queue is implemented by the Javascript API *setInterval*.
Messages containing the sensor data are first delivered to the dispatcher (*function dispatcher(message)*). Then the dispatcher send the messages to different function modules.
The function modules receive messages and analyze the data contained.
Our function *lcdBuzzerController* will deliver the analysis result to the display and buzzer.

Our implementation has met the non-functional requirements mentioned in Phase 1. Some key features are listed below:

Modularity: Function modules are highly modularized.
Responsiveness: We found out retrieving data from the database on server is very slow. So we prefetched the data and cached the analysis result in order to make sure high responsiveness.

Liveness: Some messages, for example, fire detection related messages, are sent and analyzed periodically.

Extensibility: Function modules and types of messages can be easily added.
If different function modules need the same type of message, they can be easily added in the dispatcher.