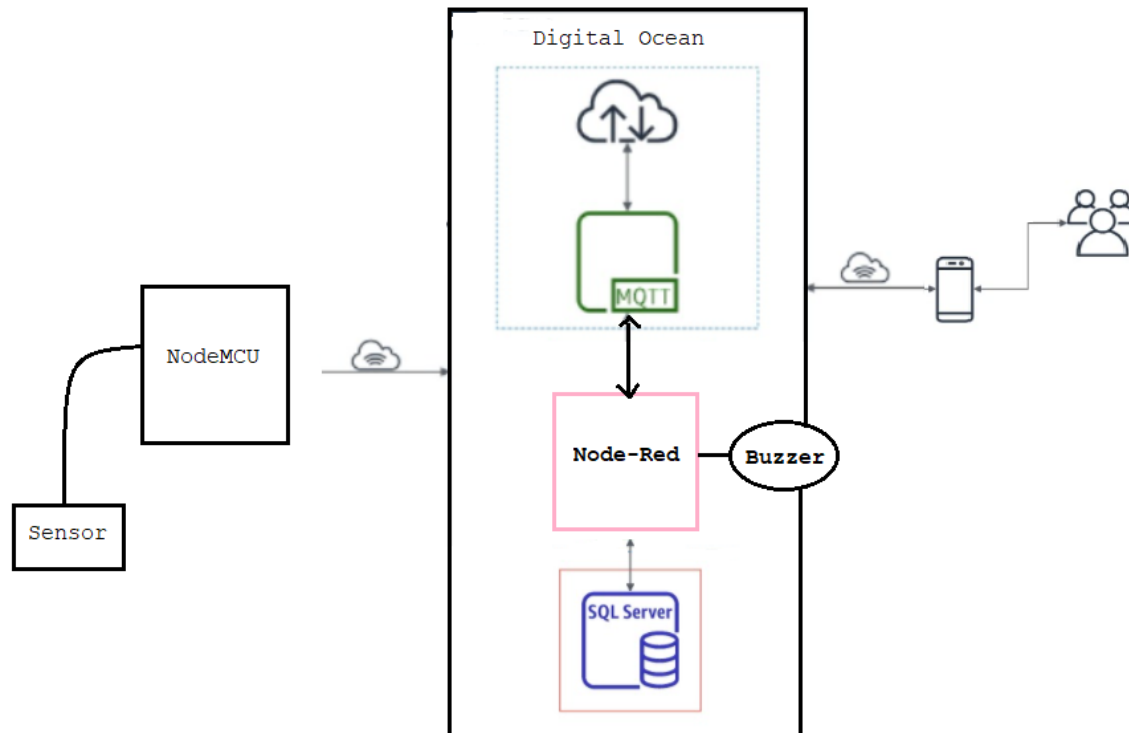




**Final Deliverable - Architectural Design**  
**Course Group 4**  
**Date: 12/02/2021**  
**Dr. Ramiro Liscano**

## Architectural Design



End-user has the ability to register and login into their IoT monitoring mobile application on their mobile device. This application is connected to Digital Ocean. Within Digital Ocean, the Mosquito Broker service is used to allow to use MQTT. The server has the ability to get connected with the application through the usage of this. Node-Red is then used to obtain respective data from the use of MySQL through queries. Once on the home page, the end-user is then able to set a threshold on the application which is then sent to the database. When this threshold is reached, a notification is sent and will activate the buzzer and send a warning message to the user. The temperature sensor is connected to the NodeMCU where data collection from the sensor takes place. The NodeMCU had also been connected directly to the Digital Ocean where we then utilized the use of Node-Red and the MQTT service.