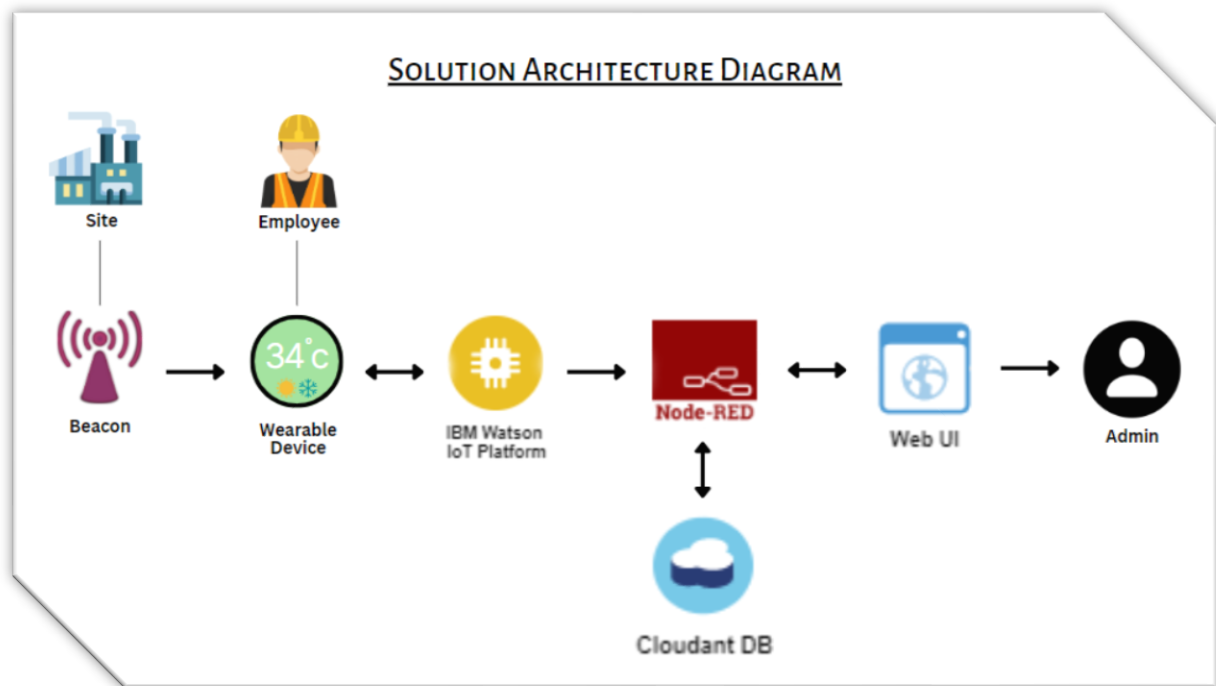# Solution Architecture

The solution architecture of a project that monitors (all) sites in a(n) (hazardous) industrial powerplant and intimates concerned personnel who are on or in range of a particular site, or are remotely observing and/or managing the same regarding the temperature of the site:

- **Site:** Each site has a beacon associated with it
- **Beacon:** Each beacon contains Raspberry pi, sensor, light, power source and other relatively minor components
- **Employee:** Each employee has a wearable device at all times
- **Wearable device:** This device will constantly show the temperature of the current site and intimate the user if the temperature rises or drops beyond normal levels that are set
- **IBM Watson IoT Platform:** It is a hub for all things IBM IoT. One can setup and manage all connected devices.
- **Node-RED:** Serves as a programming tool for wiring together hardware devices, APIs and online services
- **Web UI:** Serves as user interface
- **Cloudant DB:** Applications are created to interpret accessed data
- **Admin:** View gathered data and take necessary action if required.

Minimum viable product:
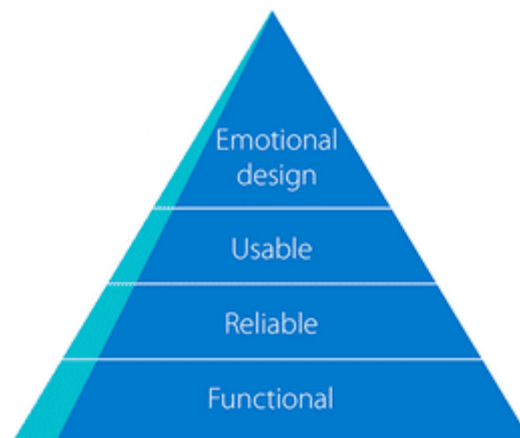
- **Functional:** It is such that using this product tempretaure undesired declines or escalations can be intimated to employees, foreseen, recorded and dealt with accordingly.
- **Reliable:** The information obtained by this product will be reliable and can confidently be used as basis to decide on an appropriate course of action.
- **Usable:** The product can be used by employees and other personnel of a hazardous industrial power plant to monitor the temperature constantly and take appropriate actions in cases of danger or emergency.
- **Design:** The design of the product is such that it is very user friendly such that even unskilled labor can use the wearable device as intended. However, skilled personnel will be required on the admin's end to decide and take appropriate actions.