Project Design Phase-II

Data Flow Diagram

Team id :	PNT2022TMID49366
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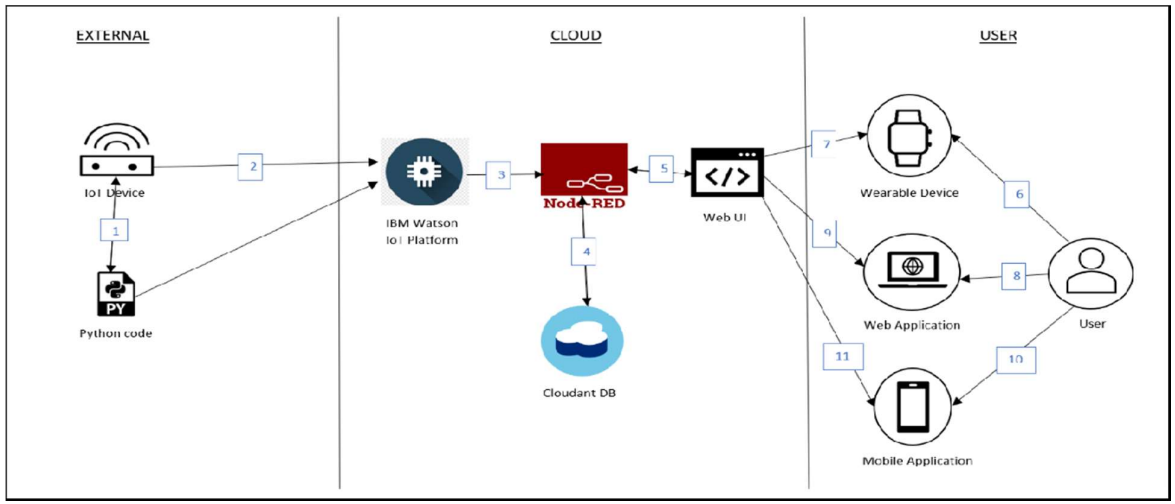
Project Title :	Hazardous Area Monitoring for Industrial Plant powered by IoT

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

FLOW:



1. Necessary Python code for collecting temp. Details from IoT device is written.
2. IoT device is connected with the IBM Watson IoT platform for gathering data.
3. Next step uses Node-Red services after IoT platform is all set.
4. Cloudant DB is used for storing and retrieving data.
5. Node-Red services are used to create Web application and UI designs.
6. (6, 7,8,9,10,11) The user uses Smartwatch, Web and mobile app to receive various information and alerts.

User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Engineering	Installation	USN-1	The engineer must install the smart beacons helmet to ensure the entire unit is covered	The beacon must be available for maximum number of worker possible.	High	Sprint-1
	Data Gathering	USN-2	The beacons obtain the temperature of the ire respective area using sensors.	The temperature of areas within the plant is obtained.	High	Sprint-1
	Data Sync	USN-3	The beacons send their data to the cloud in the real time and the administrator's dashboard.	Data is sent to the cloud successfully and synced with other devices.	High	Sprint-1
Workers	Wearable device display	USN-4	The wearable devices should display the data sent by beacons within the area.	The user can see the temperature of the area on their device.	High	Sprint-1

	Wearable device adjustments	USN-5	The user can adjust the size of the wearable device to better suit them.	The user can make adjustments to the device to make working with it more comfortable.	Low	Sprint-2
	Wearable display customization	USN-6	The user can adjust the device display to suit their needs on the device itself.	The user can modify the display of the device to increase readability.	Medium	Sprint-2
	SMS Notifications	USN-7	A notification is sent to the control room through an API key and work is alerted through notifications when the temperatures raises beyond the actual working temperature	The user is informed of potential danger via SMS as soon as it is detected by the beacons.	High	Sprint-1
Control Room Administrators	Admin Dashboard	USN-8	The beacons send the data through the cloud to a dash board which is run by the administrator.	The data of all the beacons can be viewed by the administrator of the plant.	High	Sprint-1
	Dashboard Customization	USN-9	The dashboard can be modify as per requirements the industry.	The admin can customize the UI for their dashboard.	Medium	Sprint-2