# Project Design Phase-II

Data Flow Diagram & User Stories

| Team id	PNT2022TMID46638
Project Name	Hazardous Area Monitoring for Industrial Plant powered by IoT
Maximum Marks	4Marks

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.
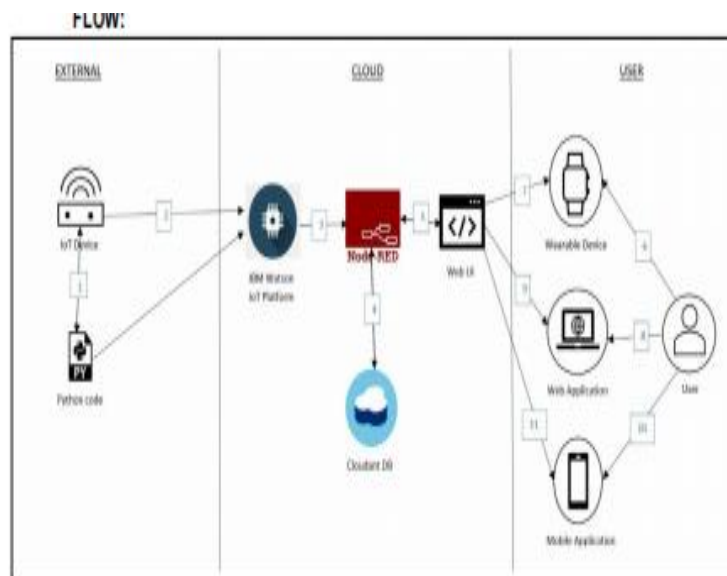
1. Necessary Python code for collecting temp. details from IoT device is written.
2. IoT device is connected with the IBM Watson IoT platform for gathering data.
3. Next step uses Node-Red services after IoT platform is all set.
4. Cloudant DB is used for storing and retrieving data.
5. Node-Red services 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.
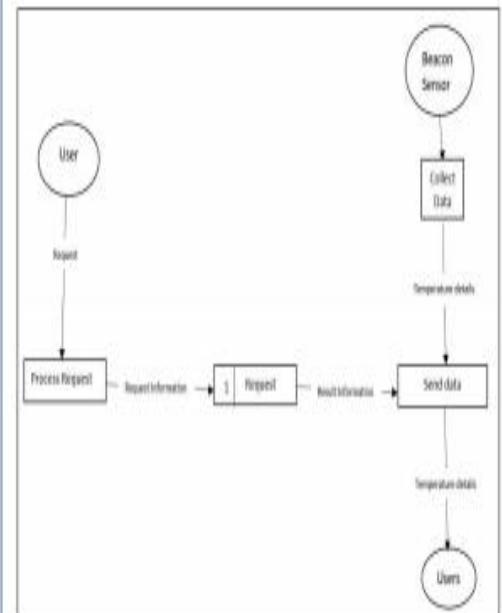
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User Stories
Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority
Technician	Installation	USN-1	The technician must install the smart beacons at points to ensure the entire area of the plant is covered.	A beacon can be found in every area of the plant.	High
	Data Gathering	USN-2	The beacons obtain the temperature of their respective area using sensors.	The temperature of areas within the plant is obtained.	High
	Data Sync	USN-3	The beacons send their data to the cloud in the real time which is in turn sent to nearby wearable devices and the administrators dashboard.	Data is sent to the cloud successfully and synced with other devices.	High

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Worker	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
	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
	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
	SMS Notifications	USN-7	The user is sent notification to their phone from the wearable devicethrough an API when the area they are in reaches dangerous temperature	The user is informed of potential danger via SMS as soon as it is detected by the beacons	High

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Administrator	Admin Dashboard	USN-8	The beacons send the data through the cloud to a dashboard which is run by the administrator.	The data of all the beacons can be viewed by the administrator of the plant.	High
	Dashboard Customization	USN-9	The dashboard can be customized by the admin to suit their personal requirements and priorities.	The admin can customize the UI for their dashboard.	Medium