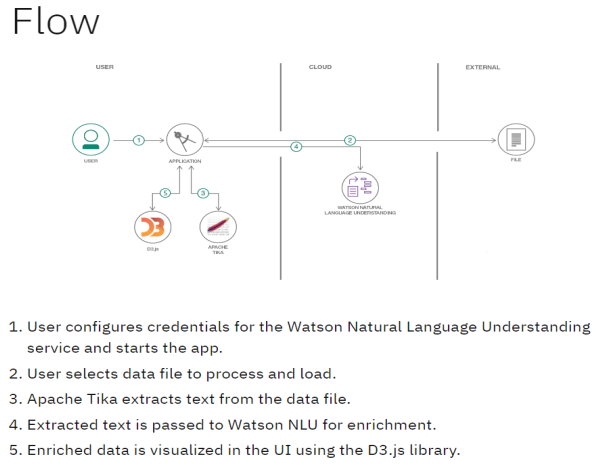
Project Design Phase-II
Data Flow Diagram & User Stories

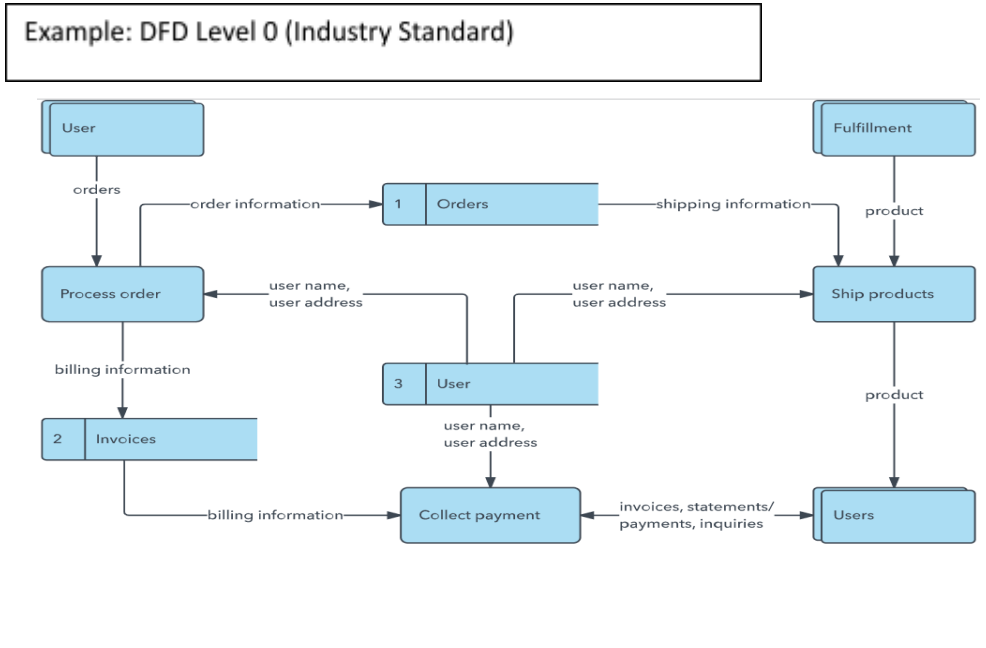
Date	03 October 2022
Team ID	PNT2022TMID27938
Project Name	Project - Hazardous Area Monitoring for Industrial Plant powered by IoT
Maximum Marks	4 Marks

Data Flow Diagrams:

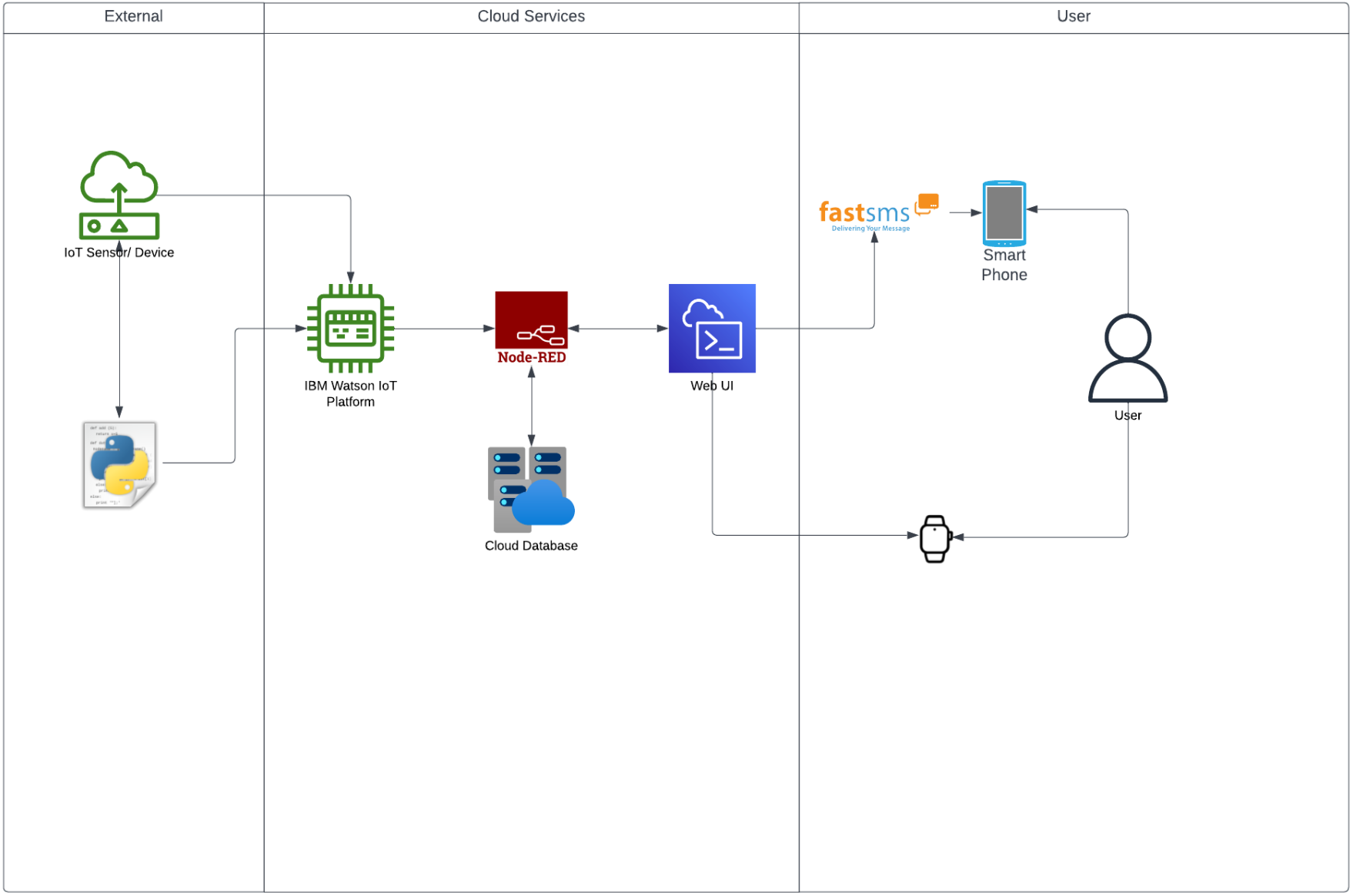
A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Example: (Simplified)

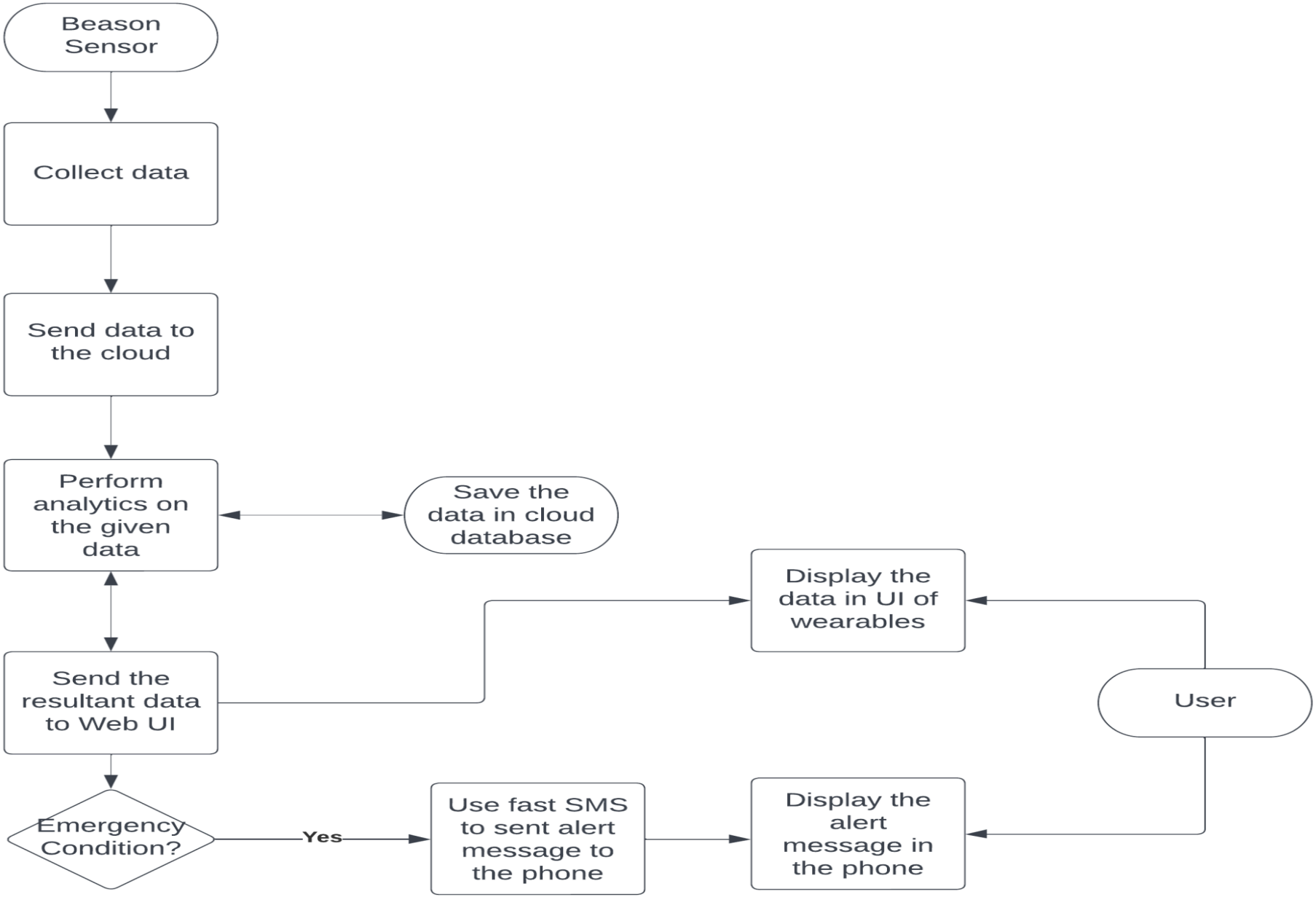




Flow


External
Cloud Services
User
IoT Sensor/ Device
IBM Watson IoT Platform
Node-RED
Cloud Database
Web UI
fastsms
Delivering Your Message
Smart Phone
User

Data Flow


Beason Sensor
Collect data
Send data to the cloud
Perform analytics on the given data
Save the data in cloud database
Send the resultant data to Web UI
Display the data in UI of wearables
User
Emergency Condition?
Yes
Use fast SMS to sent alert message to the phone
Display the alert message in the phone

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
Employee/ Worker	Wearable device display	USN-1	It should be able to display the data from the smart beacon	User can see the temperature of the surroundings from the display	High	Sprint-1
	SMS Notification	USN-2	An alert message is sent to the user's mobile through an API in case of emergency	The user is informed of the threat through SMS notification without delay	High	Sprint-1
	Wearable device strap	USN-3	The wearable device's strap should be adjustable in order to suit the comforts of the user	The user can make the necessary adjustment to make it more comfortable	Low	Sprint-3
	Wearable device display adjustment	USN-4	The user can adjust the brightness level of the display to suit their needs	The user can successfully modify the display	Medium	Sprint-2
Technician	Installation	USN-5	The technician should install the smart beacon at vital points to cover the entire hazardous area thoroughly	The smart beacon is able to scan the entire area thoroughly	High	Sprint-1
	Sensing/ Data Collection	USN-6	The sensors inside the installed smart beacons should collect/gather the data from the surrounding environment at regular basis	The data is collected on a regular basis by the smart beacon without any malfunction	High	Sprint-1
	Sending data to the cloud	USN-7	The collected data should be sent to the cloud where this data gets processed and stored and also is sent to the web application dashboard.	Data is sent to the cloud successfully	High	Sprint-1
Administrator	Admin Dashboard	USN-8	The beacons send the data to the dashboard through the cloud and it is monitored by administrators	The data collected from all the beacons can be viewed by the administrators	High	Sprint-1
	UI of the Admin Dashboard	USN-9	An user-friendly UI should be developed	The admins can easily monitor the plant with new dashboard UI	Medium	Sprint-2

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
	Advertisement Hosting	USN-10	The user interface of the wearables and dashboard can host advertisements to gain extra revenue	The advertisements can be hosted in the UI without making the UI look clumsy	Low	Sprint-3