

Project Design Phase-II

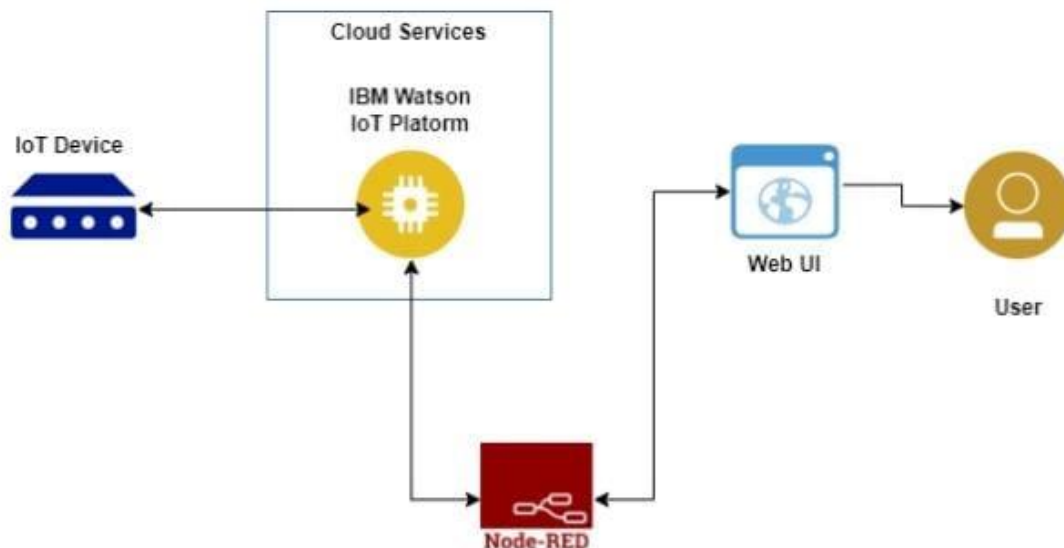
Data Flow Diagram & User Stories

Date	13 May 2023
Team ID	NM2023TMID15296
Project Name	IoT based Weather Adaptive Street Lighting System

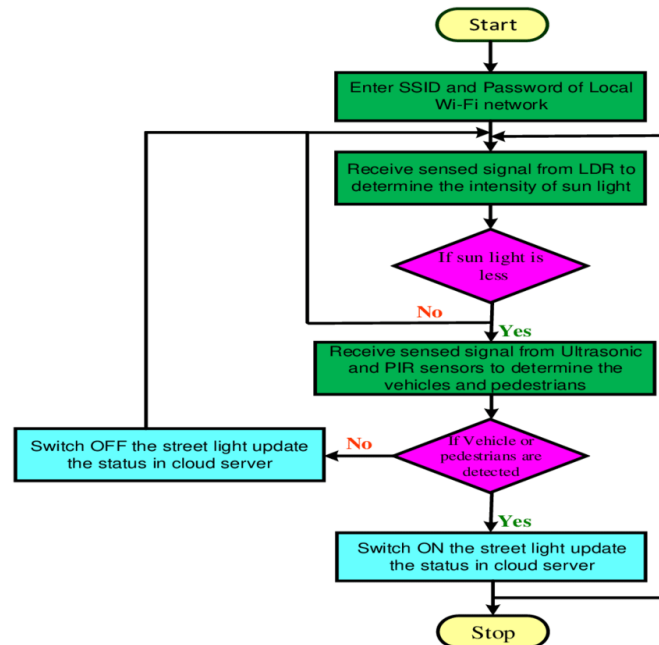
Data Flow Diagrams:

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: [\(Simplified\)](#)



Dataflow diagram:



- ❖ Using various sensors, the various weather conditions, including temperature, moisture content, wind speed and humidity are measured. The results are then stored in the IBM cloud.
- ❖ The Arduino UNO is utilized as a processing unit to process the data from the sensors and weather API.
- ❖ To write the hardware, software, and APIs. NODE-RED is employed as a programming tool. In order to communicate, the MQTT protocol is used.
- ❖ A mobile application or a software is created with MIT App Inventor makes all the collected data available to the user. Depending on the sensor results, the user might decide or adjust the lighting levels in a particular area.

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	Team Member
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sathishkumar, Iyappan Hemamalini, Sangeetha.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Team Member
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sathishkumar, lyappan Hemamalini, Sangeetha
		USN-3	As a user, I can register for the application through Gmail		High	Sathishkumar, lyappan Hemamalini, Sangeetha
	Login	USN-4	As a user, I can log into the application by entering email & password		High	Sathishkumar, lyappan Hemamalini, Sangeetha
	Dashboard					
Customer (Web user)						
Customer Care Executive						
Administrator						