

PROJECT DESIGN PHASE - II

Data Flow Diagram & User Stories

Date	03 October 2022
Team ID	PNT2022TMID27433
Project Name	Smart Farmer - IoT Enabled Smart Farming Application
Maximum marks	4 Marks

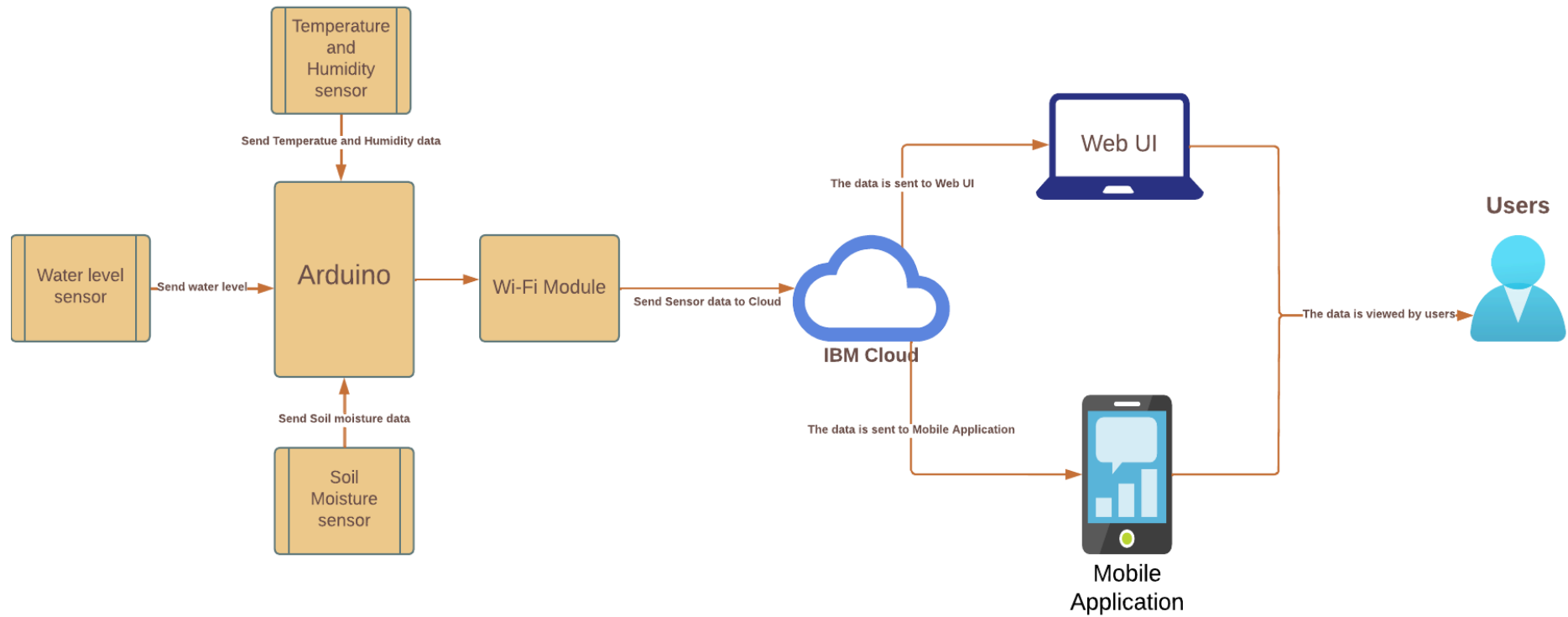
Data Flow Diagrams:

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

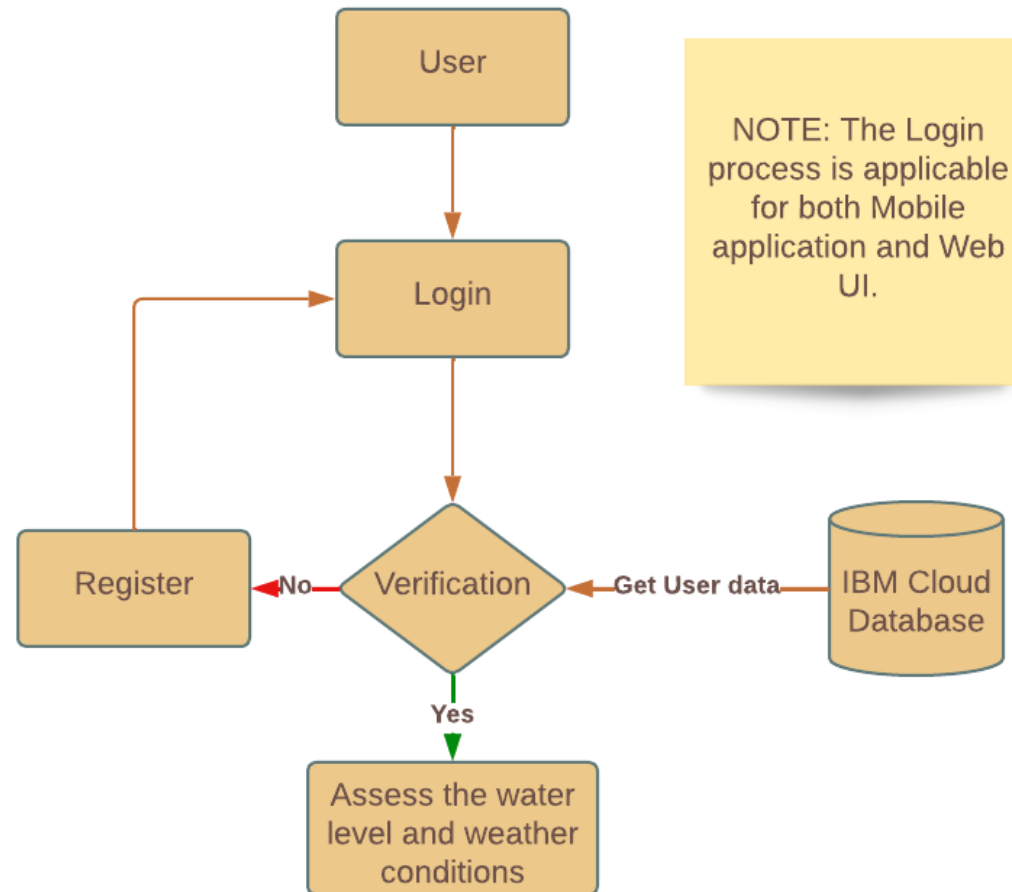
The Flow of Data:

- The Arduino collects the data from Temperature and humidity sensor, Water level sensor, and soil moisture sensor.
- The data collected is now processed and sent to the cloud using the Wi-Fi module.
- The data in the cloud is now processed for visualization and stored.
- If a user logs in through the mobile or webpage, he/she can view the parameters through the platform.
 1. If the user is new, he/she needs to register using a valid email and create a password for the account.
 2. If the user is already existing, he/she can be able to access the resources in the webpage or application.

Data Flow Diagram Level 0



Data Flow Diagram Level 1



User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story/Task	Acceptance criteria	Priority	Release
Farmer (Mobile User)	Registration	USN - 1	As a farmer, I want to first register using my email and create a password for the account.	I am given access to my account and can use it after installing the application.	High	Sprint - 1
	Login	USN - 2	As a registered user, I need to easily log in using the registered account.	I should be able to access the dashboard and can view the needed stats.	High	Sprint - 1
	User Interface	USN - 3	As a user, I want an attractive user interface to view the parameters remotely through mobile.	I can access the dashboard after logging in using the navigation panel and view the needed parameters in my field.	Medium	Sprint - 2
	Data Visualization	USN - 4	The data from the sensors transmitted through Arduino needs to be viewed in the mobile application remotely from anywhere.	I can view the visualization of data in the mobile application.	High	Sprint - 3
Farmer (Web User)	Registration	USN - 1	As a farmer, I want to first register using my email and create a password for the account.	I am given access to my account and can use it.	High	Sprint - 1
	Login	USN - 2	As a registered user, I need to easily login log into my registered account via the webpage in minimum time.	I can access the webpage from the cloud platform and can be able to access the necessary data.	High	Sprint - 1

	Web UI	USN - 3	As a user, I need to have a friendly user interface to easily view and access the resources.	I can easily access and monitor the parameters in the field at ease.	Medium	Sprint - 4
Chemical Manufacturer (Web user)	Registration	USN - 1	As a new user, I want to first register using my organization email and create a password for the account.	I am now given access to the account.	High	Sprint - 1
	Login	USN - 2	As a registered user, I need to easily log in using the registered account via the webpage.	I can access the webpage and can be able to access the necessary data needed for monitoring chemical storage facilities.	High	Sprint - 1
	Web UI	USN - 3	As a user, I need to have a user-friendly interface to easily view and access the resources.	I can easily access and monitor the parameters in the chemical storage at the factory from anywhere through the webpage.	Medium	Sprint - 3
Chemical Manufacturer (Mobile User)	Registration	USN - 1	As a user, I want to first register using my email and create a password for the account.	I am given access to use the application and can use it on my mobile.	High	Sprint - 1
	Login	USN - 2	As a registered user, I need to easily log in to the application.	I should be able to access the dashboard and can view the needed stats.	High	Sprint - 1
	Data Visualization	USN - 3	The data from the sensors transmitted through Arduino needs to be viewed in the mobile application remotely from anywhere.	I can view the visualization of data from the chemical storage facilities in the mobile application.	High	Sprint - 2

	User Interface	USN - 4	As a user, I want an attractive user interface to view the parameters remotely through mobile.	I can access the dashboard after logging into the application and viewing the conditions of the chemical storage facility.	Medium	Sprint - 3
Administrator	Login	USN - 1	As an admin, I need to log in to the account and should view the status of all the installed devices.	I can log in to the webpage and access the basic information of the customer and their device status and their type of work/domain.	High	Sprint - 1
	Upgrades	USN - 2	As an admin, I need to update new upgrades and services up to the date.	I have upgraded the webpage or application with advanced services according to the kind of task they need to accomplish.	Medium	Sprint - 4
	Support	USN - 3	As an admin, I need to address customer queries and take necessary measures.	I have addressed the customer's queries and provided the necessary services.	Low	Sprint - 4

