# Project Design Phase - II Data Flow
Diagram & User Stories

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.
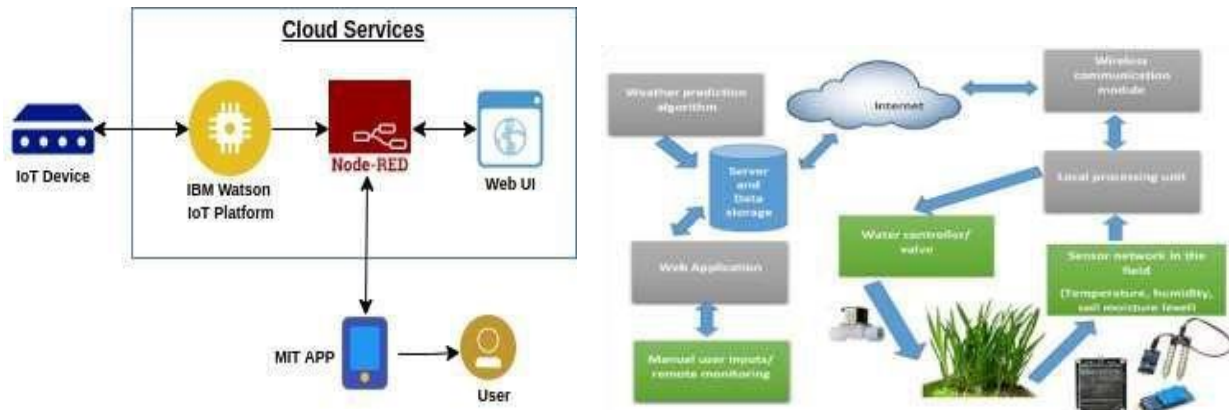
- The different soil parameters temperature, soil moistures and then humidity are sensed using different sensors and obtained value is stored inthe IBM cloud.
- Arduino UNO is used as a processing Unit that process the data obtainedfrom the sensors and whether data from the weather API.
- NODE-RED is used as a programming tool to write the hardware, software,and APIs. The MQTT protocol is followed for the communication.
- All the collected data are provided to the user through a mobile applicationthat was developed using the MIT app inventor.
- The user could plan through an app, weather to water the crop or not depending upon the sensor values. By using the app, they can remotely operate to the motor switch.

User Stories:

User Type	Functional Requirement	User Story Number	User Story/Task	Acceptanc ecriteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password and confirmingmy password.	I can access myaccount/ dashboard	High	Sprint-1
	Permission	USN-2	As a user, I will receive confirmation email once I haveregistered for the application.	I can receive confirmatio n email & click confirm.	High	Sprint-1
Customer (Web user)	Login	USN-3	As a user, I can log into the application by entering email &password.	I can register &access the dashboard with Login	High	Sprint-2
	Check credential s	USN-4	As a user, I can register for theapplication through mobile application	Temperatur eand Humidity details	Medium	Sprint-1
	Dashboard	USN-5	As a user can view the dashboard and this dashboardinclude the check roles of access and then move to the manage modules.	I can view the dashboard in thissmart farming application system.	Medium	Sprint-1
Customer care Executive	MIT app	USN-6	To make the user to interactwith the software.	Database to store in cloud services.	High	Sprint-1
Administrator	IOT devices	USN-7	As a user once view the managemodules this describes the manage system admins and Manage Roles of user and etc..,		Medium	Sprint-1
	Log out	USN-8	Exit	Sign out	High	Sprint-1