Smart Farmer - IOT Enabled Smart Farming Application

Project Objective :

Team ID	PNT2022TMID19524

Project Summary :

      Smart Farming – IoT Enabled Smart Farming Application is a project that focuses upon monitoring various parameters such as soil moisture , climatic conditions in order to grow and yield a good crop . The project is developed mainly on the Agriculture Sector and helps a lot of farmers all over the country . Farmer is provided a mobile app using which he can monitor various parameters the temperature , humidity and soil moisture parameters along with weather forecasting details . Based on all the parameters he can water his crop by controlling the motors using the mobile application . Even if the farmer is not present near his crop he can water his crop by controlling the motors using the mobile application from any- where . The farmer can also get the real time weather forecasting data by using ex- ternal platforms like Open Weather API . We are using the Online IoT simulator for getting the Temperature , Humidity and Soil Moisture values.

Project Requirements :

- IBM Cloud Platform
- IBM Watson IoT Platform
- Node-RED Software
- Python IDE Software

- Open Weather API Platform

System Required :

- RAM-Minimum 4GB Processor-Min. Configuration OS-Windows/Linux/MAC.

Project Deliverables :

- Gaining of knowledge of Watson IoT Platform.
- Connecting IoT devices to the Watson IoT Platform and exchange the sensor data.
- Exploring Python client libraries of Watson IoT Platform
- Configuring APIs using Node-RED for communicating with a Web Applica- tion.
- Creating Mobile Application using MIT App Inventor through which the user interacts with the IoT device.