Project Design Phase-

IIDataFlow Diagram

Date	16October2022
TeamID	PNT2022TMID08508
ProjectName	SmartFarmer-IOTEnabledSmartFarmingApplication
Maximummarks	4Marks

DataFlowDiagrams:

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

DFD 0 FLOW SMART FAMING APPLICATION USING IOT
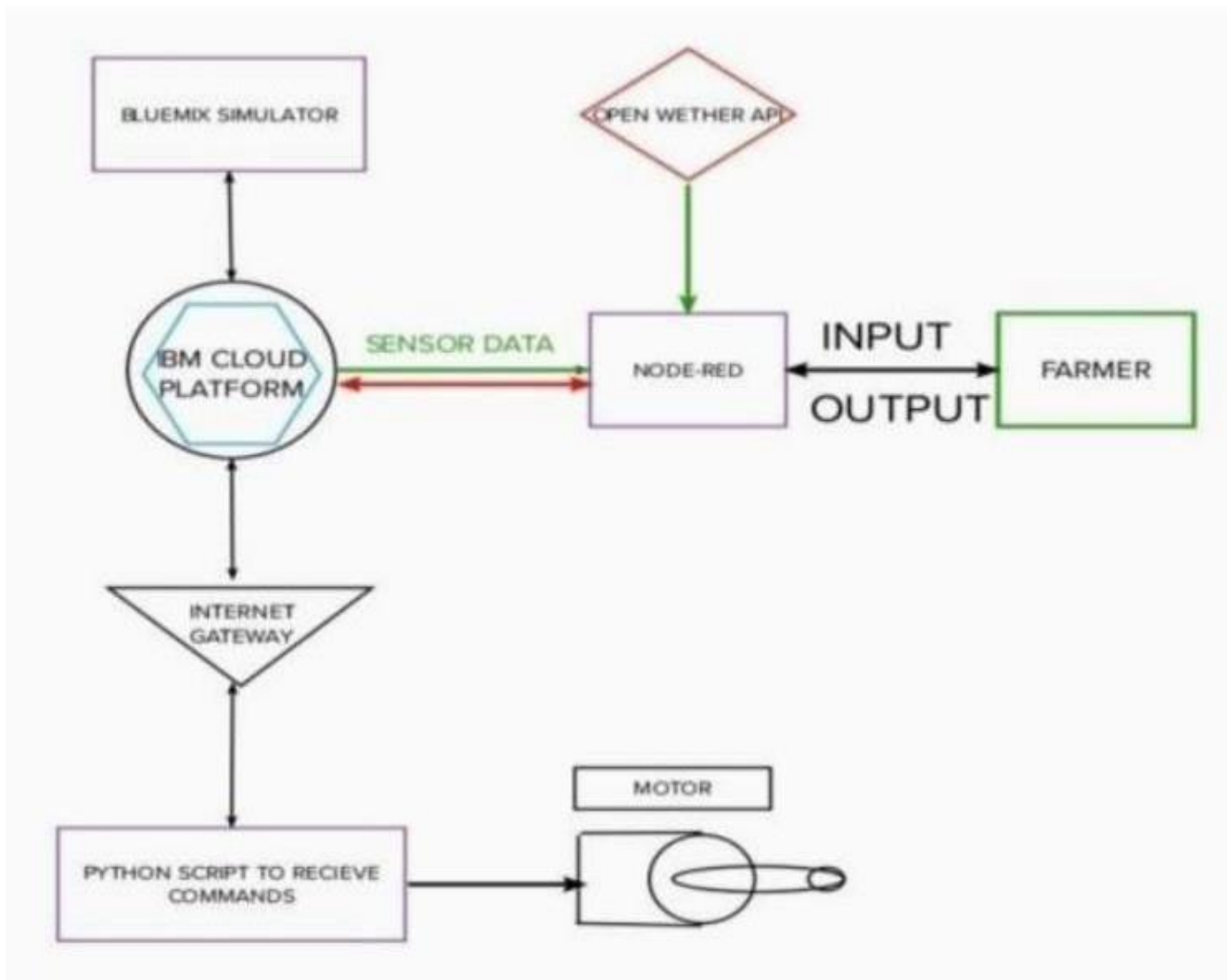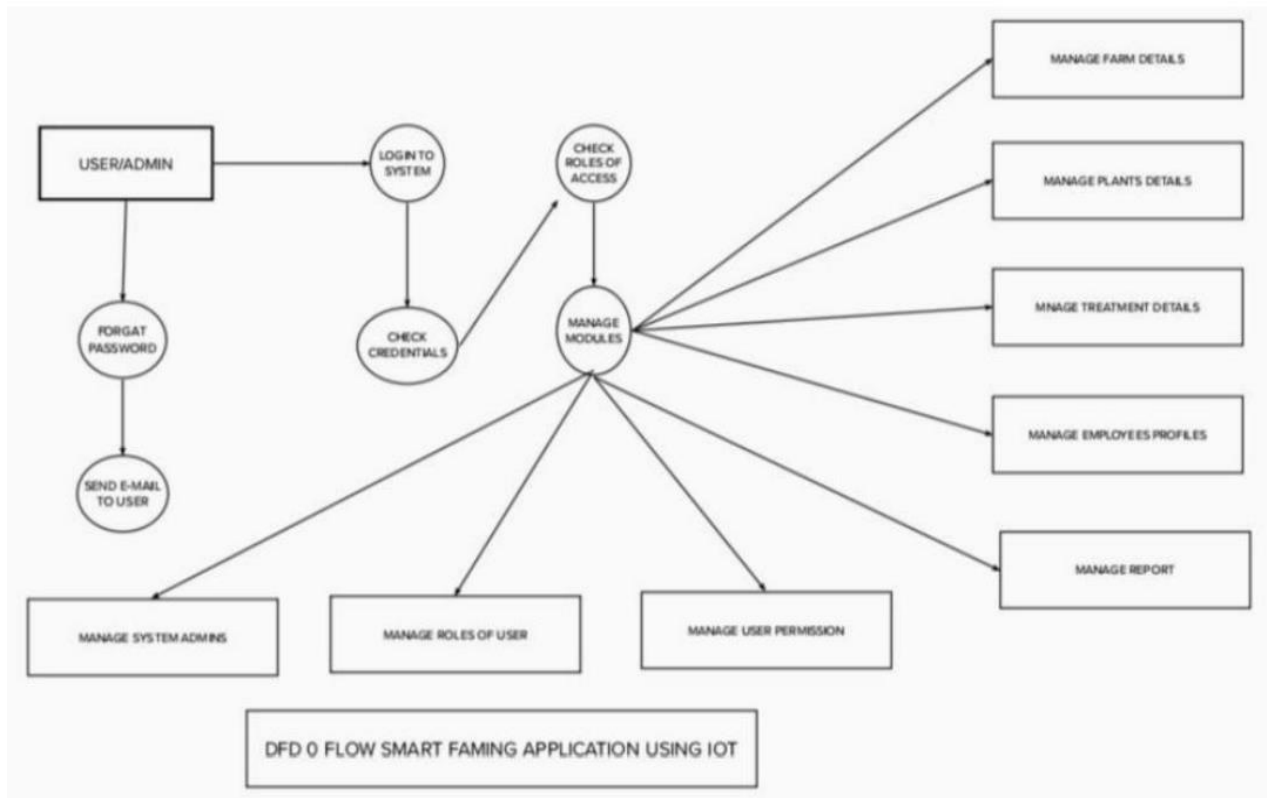
1. Thedifferentsoilparameterstemperature,soilmoisturesandthenhumidityaresensedusingdifferent sensorsandobtained value isstoredin theIbmcloud.

2. Arduino UNO is used as a processing Unit that process the data obtained from thesensorsand whether data from theweather API.

3. NODE-REDisusedasaprogrammingtooltowritethehardware,softwareandAPIs.TheMQTT protocolisfollowed for thecommunication.

4. All the collected data are provided to the user through a mobile application that wasdeveloped using the MIT app inventor. The user could make a decision through an app,weather to water the crop or not depending upon the sensor values. By using the app theycanremotelyoperateto the motor switch.