

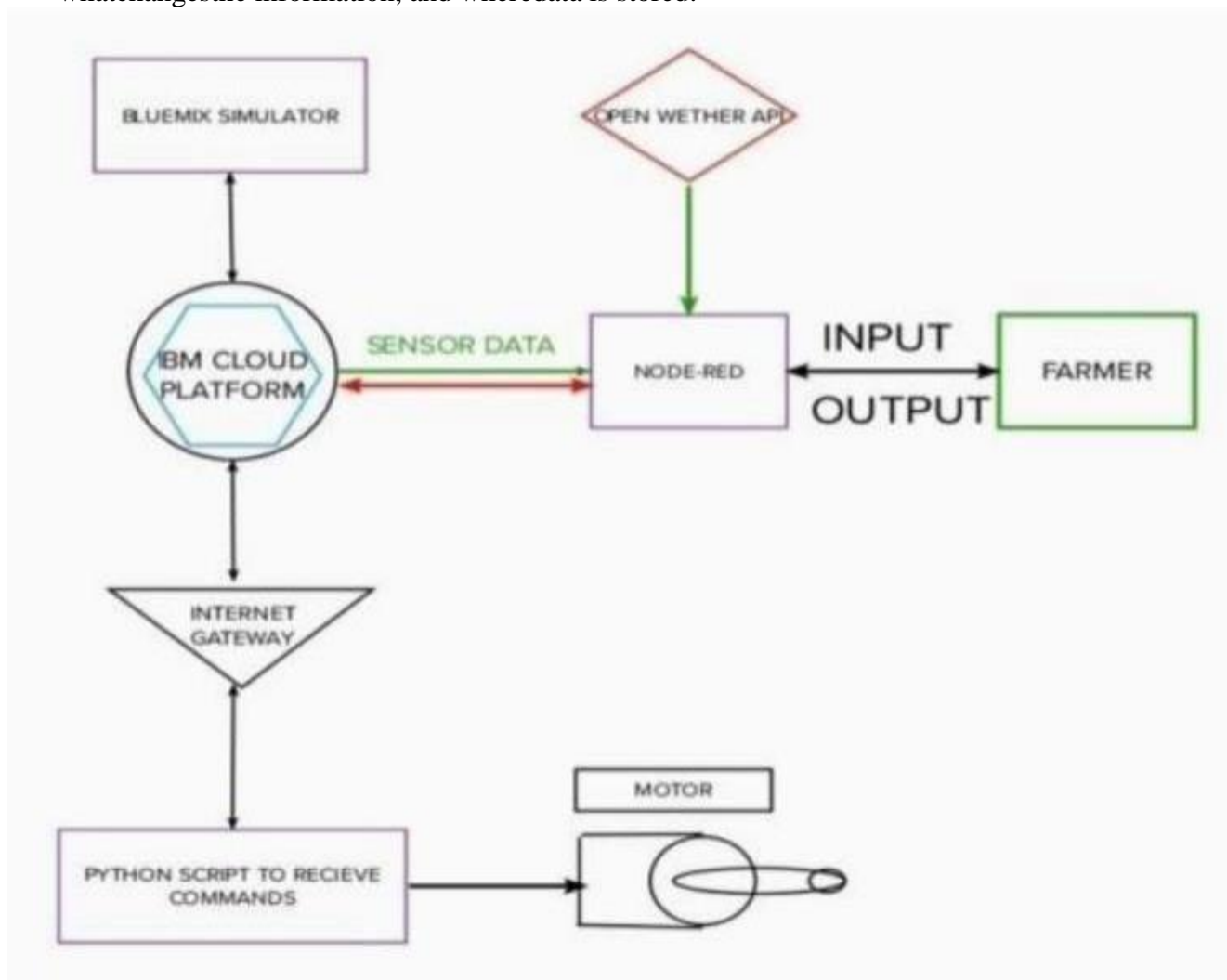
## Project Design Phase-II

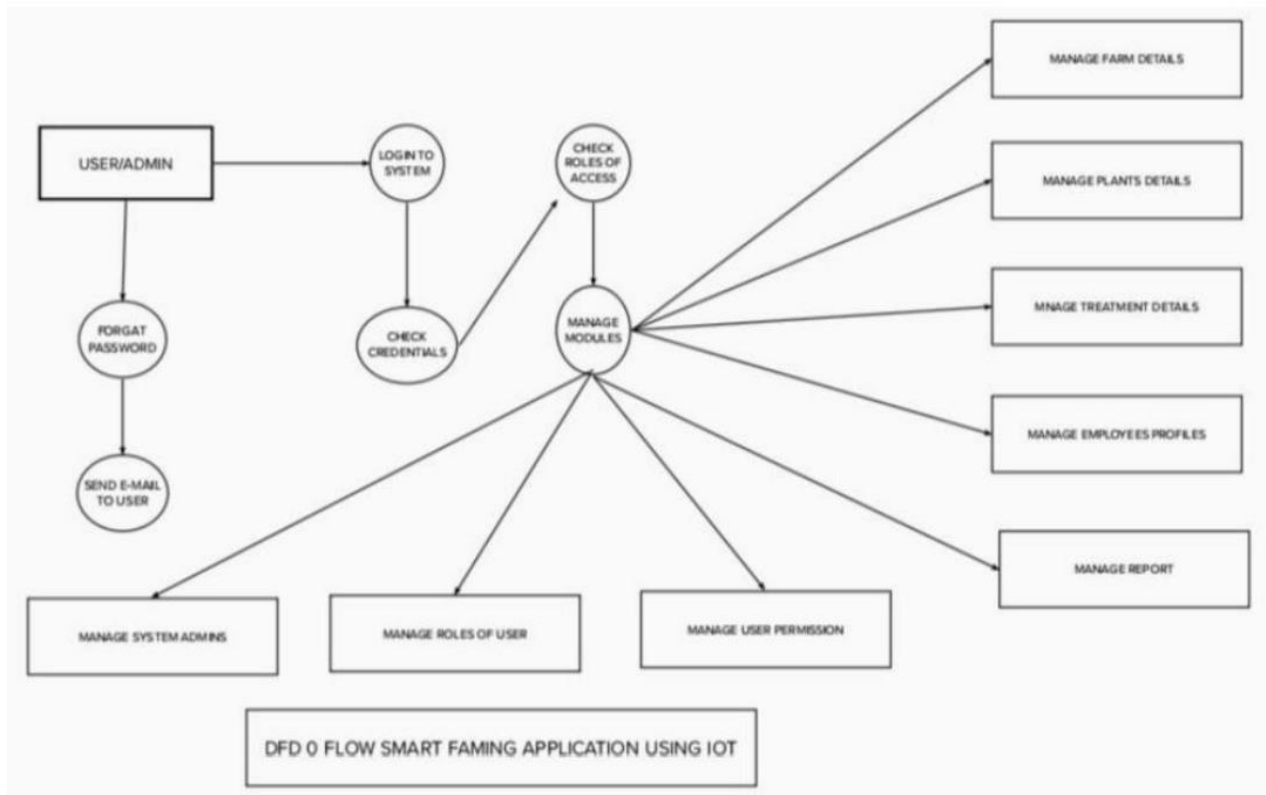
### DataFlow Diagram

|              |   |
|--------------|---|
| Date         | 29 October 2022                               |
| TeamID       | PNT2022TMID08447                              |
| ProjectName  | SmartFarmer-IOTEnabledSmartFarmingApplication |
| Maximummarks | 4Marks  |

#### DataFlowDiagrams:

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.





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