Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	16 October 2022
Team ID	PNT2022TMID11911
Project Name	Project - IoT Based Smart Crop Protection System forAgriculture
Maximum Marks	4 Marks

TEAM LEAD:

T.Saravanapriyan

TEAM MEMBERS:

K.Srivaratharaj

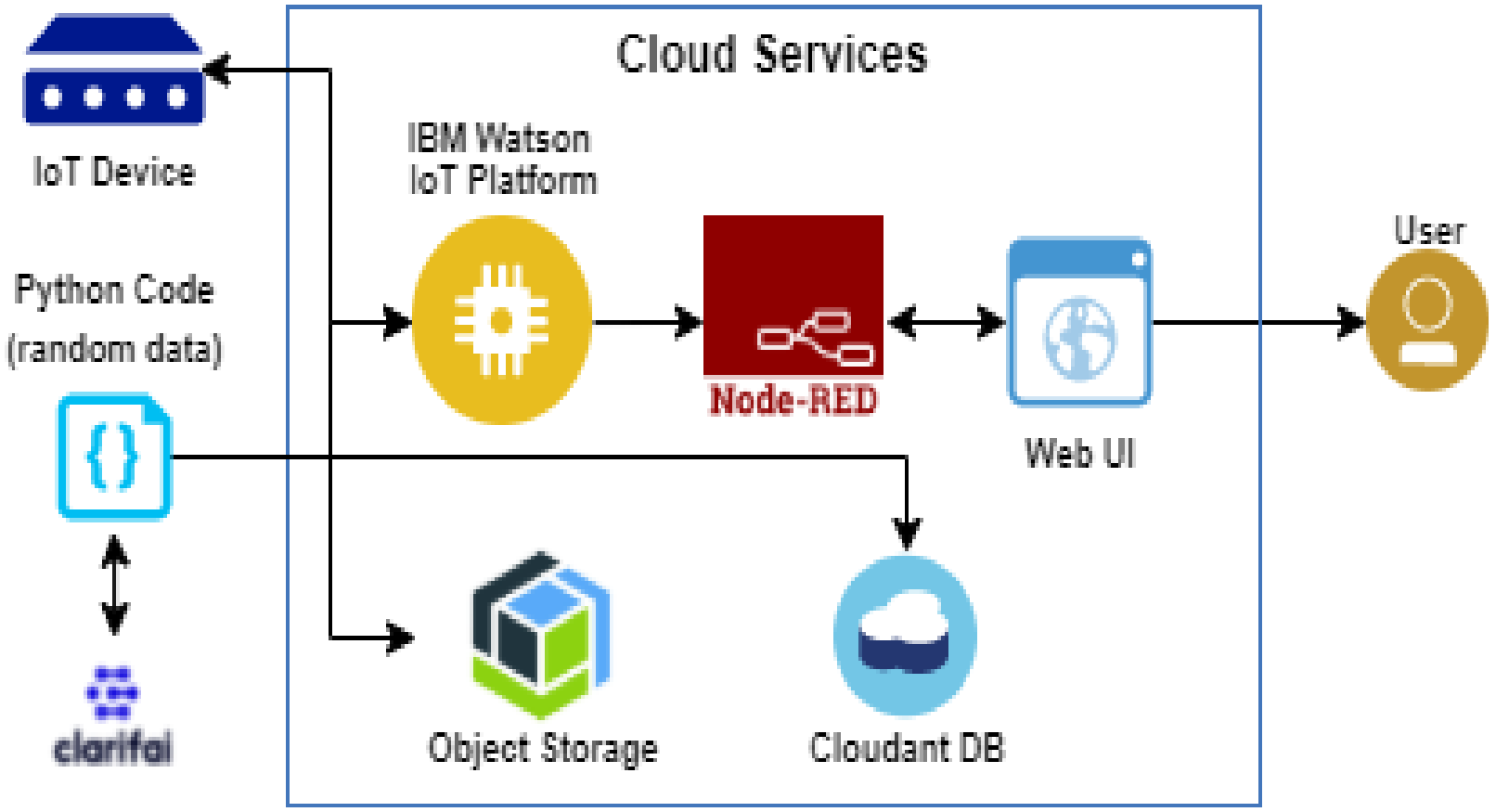
G.Ramesharavind

S.Sakthivel

Technical Architecture:

The architectural diagram of the model is as below and the Technology used is shown in table1 & table 2

Reference: https://smartinternz.com/guided-project/iot-based-smart-agriculture


Cloud Services
IoT Device
IBM Watson
IoT Platform
Python Code
(random data)
Node-RED
Web UI
User
clarifai
Object Storage
Cloudant DB

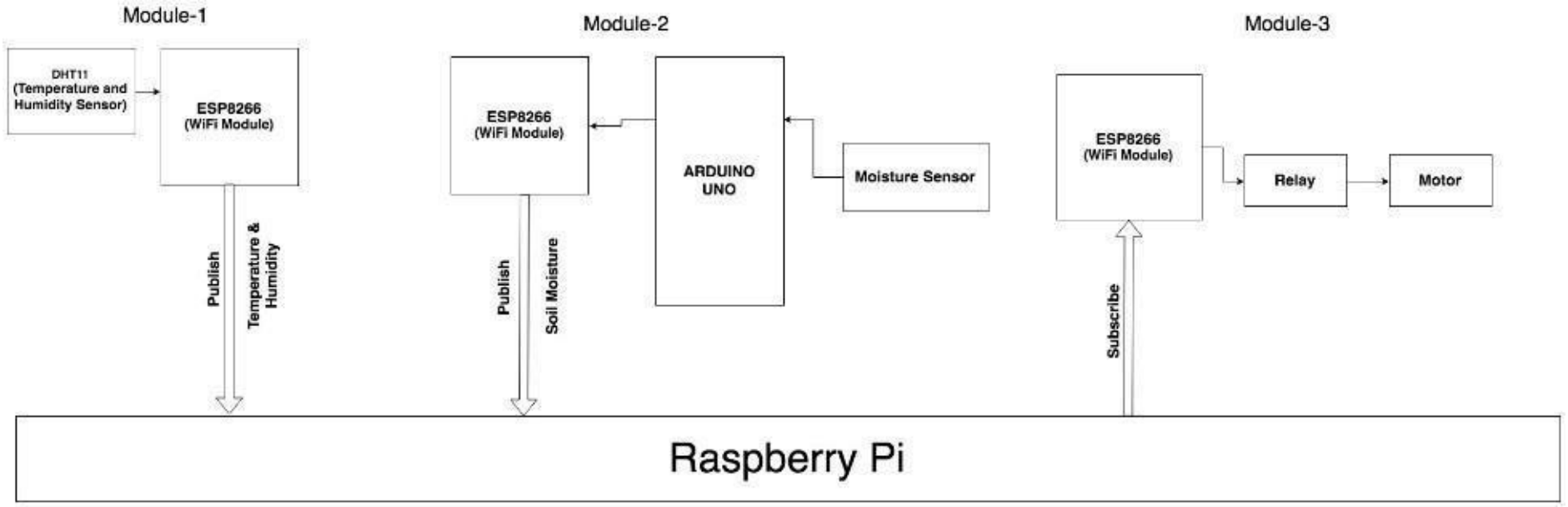


FIG. 1. BLOCK DIAGRAM

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g., MobileApplication	HTML, CSS, JavaScript / Angular JS / Node Red.
2.	Application Logic-1	Logic for a process in the application	Java / Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	IoT Model	Purpose of IoT Model is for integrating the sensors with a user interface.	IBM IoT Platform
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

References:

https://smartinternz.com/guided-project/iot-based-smart-agriculture

https://maker.pro/raspberry-pi/tutorial/how-to-automate-your-home-with-raspberry-pi-and-ibm-cloud

https://www.circuitbasics.com/logging-sensor-data-to-the-cloud-using-the-raspberry-pi/