Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	22October 2022
Team ID	PNT2022TMID06411
Project Name	Project - IoT Based Smart Crop Protection System for Agriculture
Maximum Marks	4 Marks

TEAM LEAD:
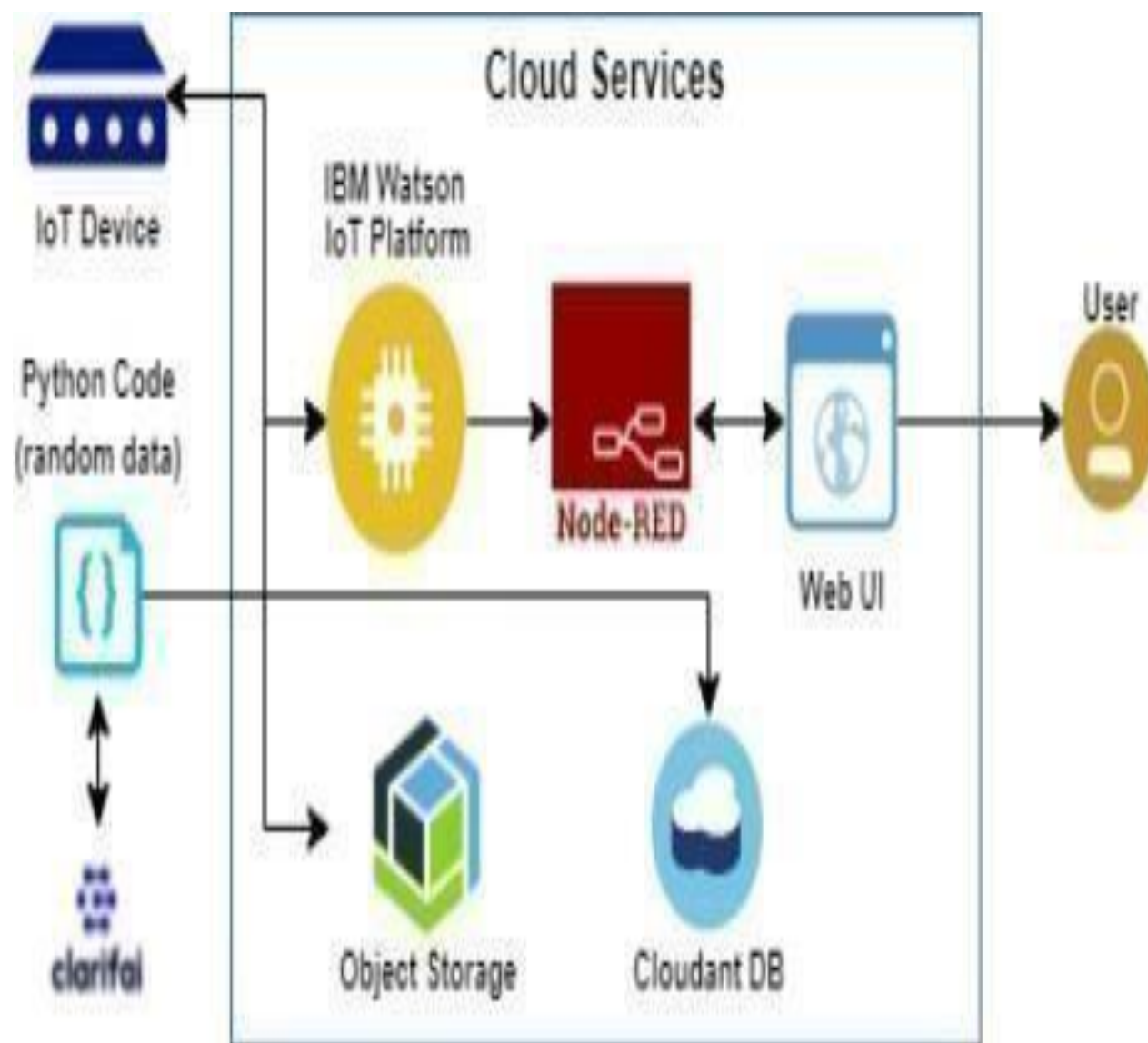
    Dhivya.V

TEAM MEMBERS:

Dhinesh M
Dinesh kumar N
Divyabharathi S

Technical Architecture:

The architectural diagram of the model is as below and the Technology used is shown in table1 & table 2
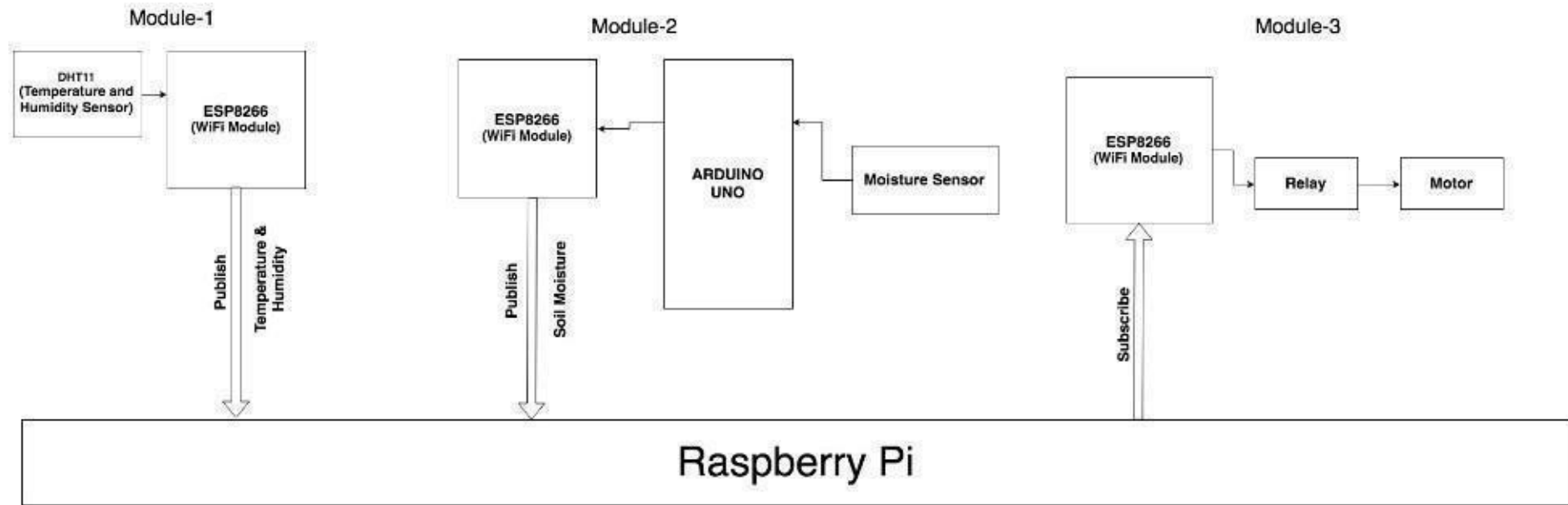
Reference: https://smartinternz.com/guided-project/iot-based-smart-agriculture

IoT Device

Python Code
(random data)

clarifai

Cloud Services

IBM Watson
IoT Platform

Node-RED

Web UI

User

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., Mobile Application	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://www.computerweekly.com/news/252504285/How-IoT-and-machine learning-are-automating-agriculturehttps://compon e
nts.omron.com/usen/ solutions/iot