

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

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|---------------|--|
| Date | 16 October 2022 |
| Team ID | PNT2022TNID20130 |
| Project Name | Project - IoT Based Smart Crop Protection System for Agriculture |
| Maximum Marks | 4 Marks |

TEAM LEAD:

LOKESH.C

TEAM MEMBERS:

MADUMITHA.B

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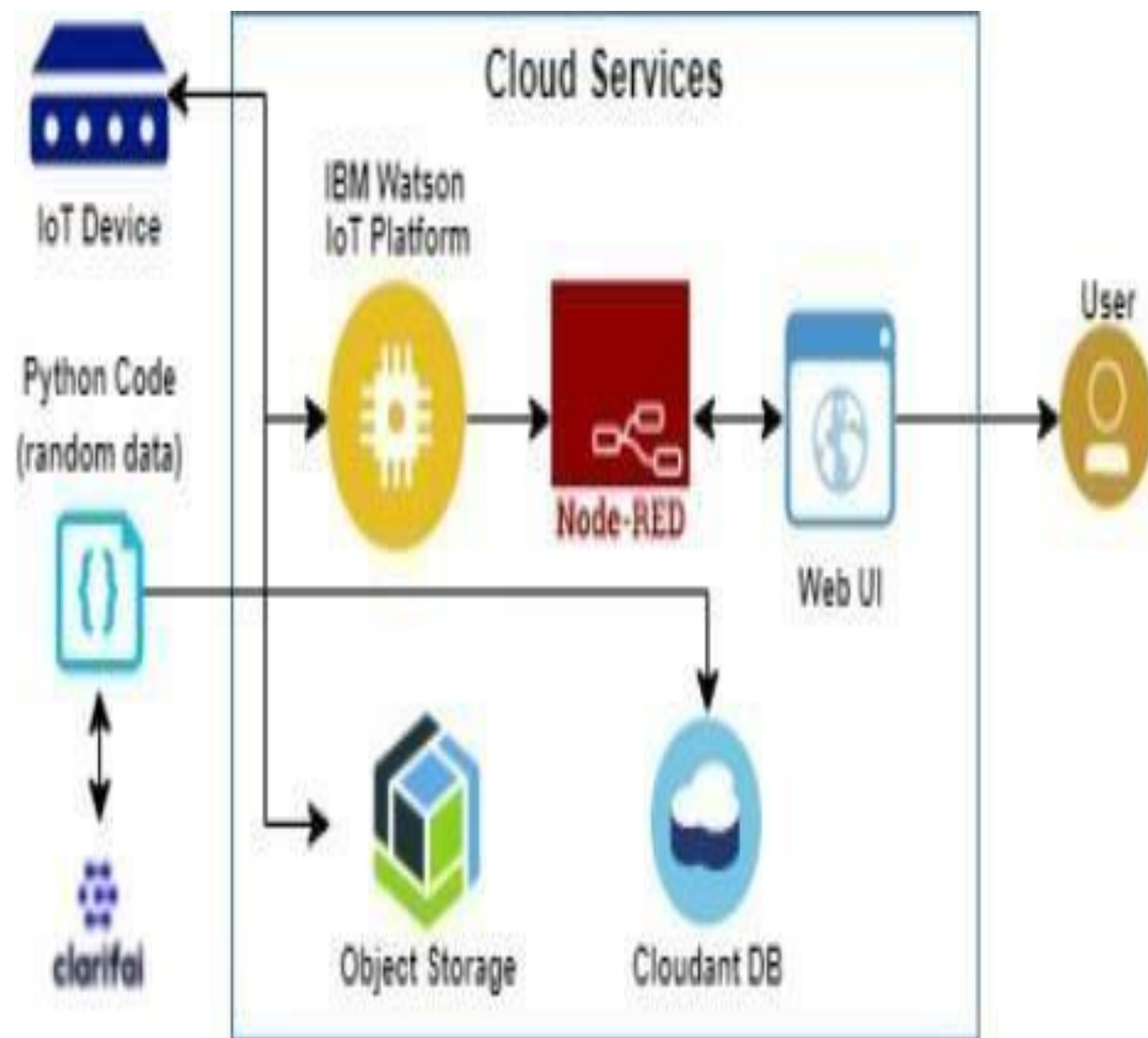
MUKILARASAN.V.R

PRAVEENA.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>



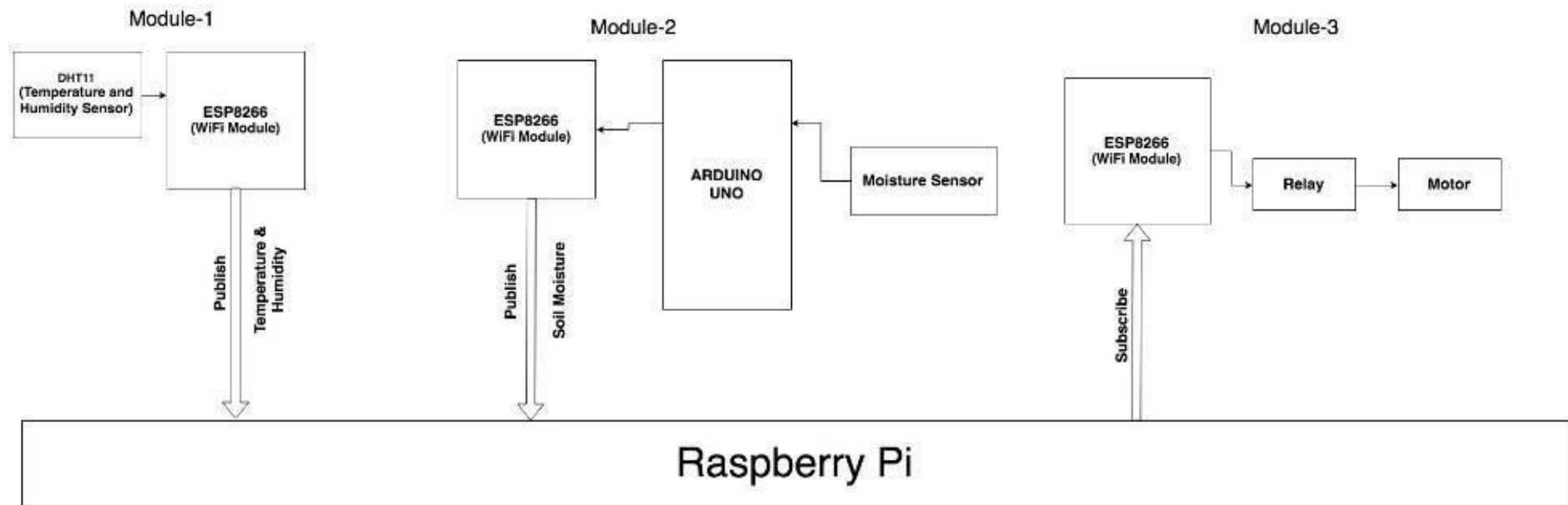


FIG. 1. BLOCK DIAGRAM

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-agriculture>

<https://components.omron.com/us-en/solutions/iot>