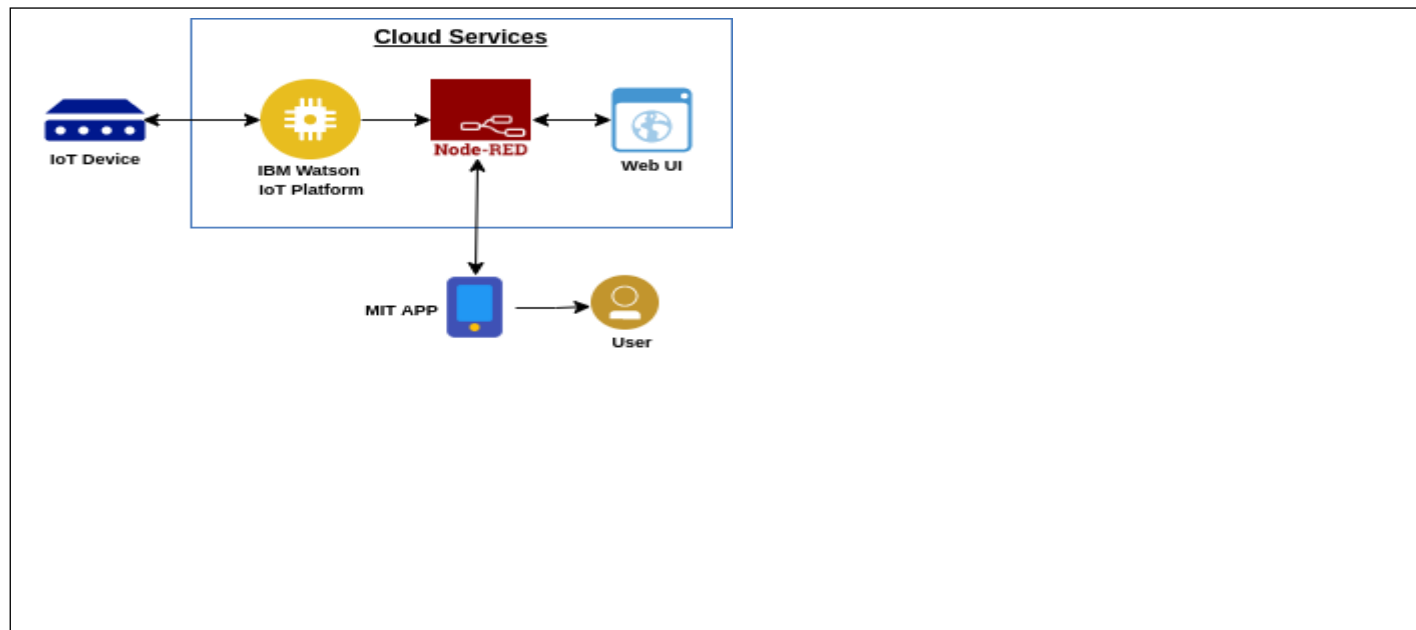


**Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

|               |  |
|---------------|--|
| Team ID       | PNT2022TMID46860   |
| Project Name  | Project –Smart Farmer-IoT enabled smart farming application. |
| Maximum Marks | 4 Marks  |

**Technical Architecture:**

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



**Table-1 :Components & Technologies:**

| S.No | Component                           | Description   | Technology                  |
|------|-------------------------------------|---|-----------------------------|
| 1.   | User Interface                      | How user interacts with application e.g. Web UI, Mobile App, Chatbot etc. | MIT app                     |
| 2.   | Application Logic-1                 | Logic for a process in the application                                    | Node red/IBM Watson/MIT app |
| 3.   | Application Logic-2                 | Logic for a process in the application                                    | Node red/IBM Watson/MIT app |
| 4.   | Application Logic-3                 | Logic for a process in the application                                    | Node red/IBM Watson/MIT app |
| 5.   | Database                            | Data Type, Configurations etc.  | MySQL, NoSQL, etc.          |
| 6.   | Cloud Database                      | Database Service on Cloud   | IBM cloud.                  |
| 7.   | Temperature sensor                  | Monitors the temperature of the crop                                      |                             |
| 8.   | Humidity sensor                     | Monitors the humidity   |                             |
| 9.   | Soil moisture sensor (Tensiometers) | Monitors the soil temperature   |                             |
| 10.  | Weather sensor                      | Monitors the weather  | .                           |
| 11.  | Solar panel                         |   | .                           |
| 12.  | RTC module                          | Date and time configuration   |                             |
| 13.  | Relay                               | To get the soil moisture data   |                             |

**Table-2: Application Characteristics:**

| S.No | Characteristics        | Description  | Technology |
|------|------------------------|--|------------|
| 1.   | Open-Source Frameworks | MIT app,Node-Red   | Software   |
| 2.   | Scalable Architecture  | Drone technology, pesticide monitoring ,Mineral identification in soil | Hardware   |