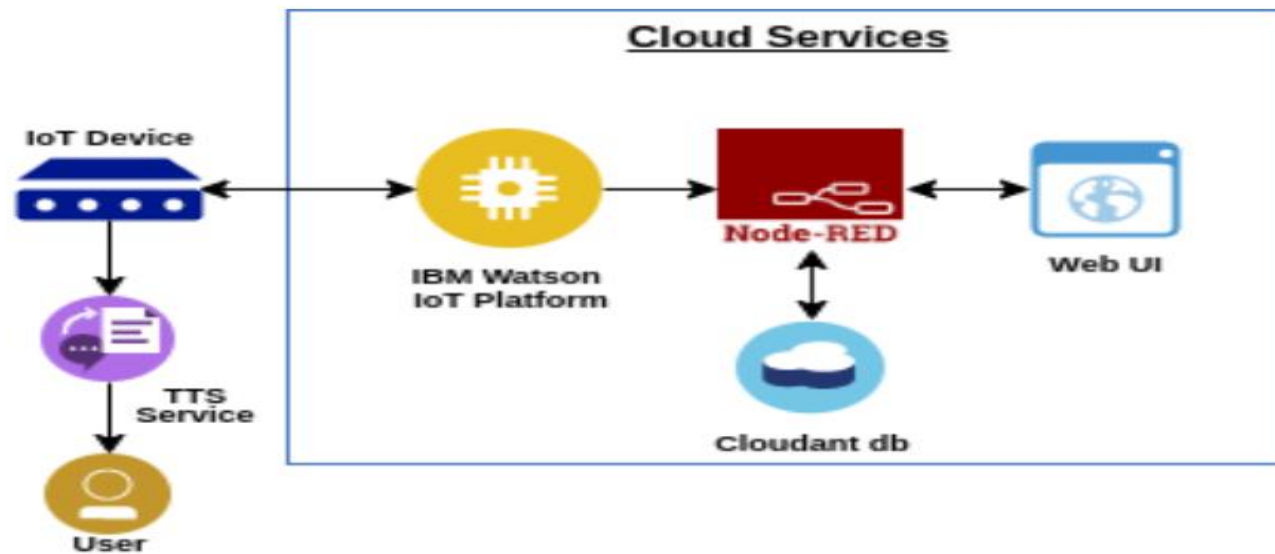


**Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

|               |   |
|---------------|---|
| Date          | 17October 2022  |
| Team ID       | PNT2022TMID16081  |
| Project Name  | <b>Project - Personal Assistance for Seniors Who Are Self-Reliant</b> |
| 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:**

| <b>S.No</b> | <b>Component</b>                | <b>Description</b>  | <b>Technology</b>  |
|-------------|---------------------------------|---|--|
| 1.          | User Interface                  | How user interacts with application e.g. Web UI, Mobile App.  | IBM IoT Platform, IBM Node red, IBM Cloud                      |
| 2.          | Application Logic-1             | Create IBM Watson IoT Platform and create node-red service  | IBM Watson, IBM Cloudant service, IBM node-red                 |
| 3.          | Application Logic-2             | Build a web application using node-red service  | IBM Node-red   |
| 4.          | Application Logic-3             | An assistive technology that reads digital text aloud   | Text to Speech (TTS)   |
| 5.          | Database                        | Data Type, Configurations etc.  | MySQL  |
| 6.          | Cloud Database                  | Database Service on Cloud   | IBM DB2, IBM Cloudant  |
| 7.          | File Storage                    | Developing mobile application to store and receive the sensors information and to react accordingly | 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.          | External API-2                  | Purpose of External API used in the application   | Aadhar API, etc.   |
| 10.         | Machine Learning Model          | Using this we can derive the object recognition model   | Object Recognition Model                                       |
| 11.         | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud<br>Cloud Server Configuration                        | IBM Cloudant, IBM IoT Platform                                 |

**Table-2: Application Characteristics:**

| <b>S.No</b> | <b>Characteristics</b>   | <b>Description</b>                  | <b>Technology</b>         |
|-------------|--------------------------|-------------------------------------|---------------------------|
| 1.          | Open-Source Frameworks   | MIT App Inventor                    | MIT License               |
| 2.          | Security Implementations | IBM Services                        | Encryptions, IBM Controls |
| 3.          | Scalable Architecture    | Sensor-IOT Cloud Based Architecture | Cloud Computing and AI    |
| 4.          | Availability             | Mobile, Laptop and Desktop          | MIT App                   |
| 5.          | Performance              | Dispenses Medicine                  | Sensors                   |