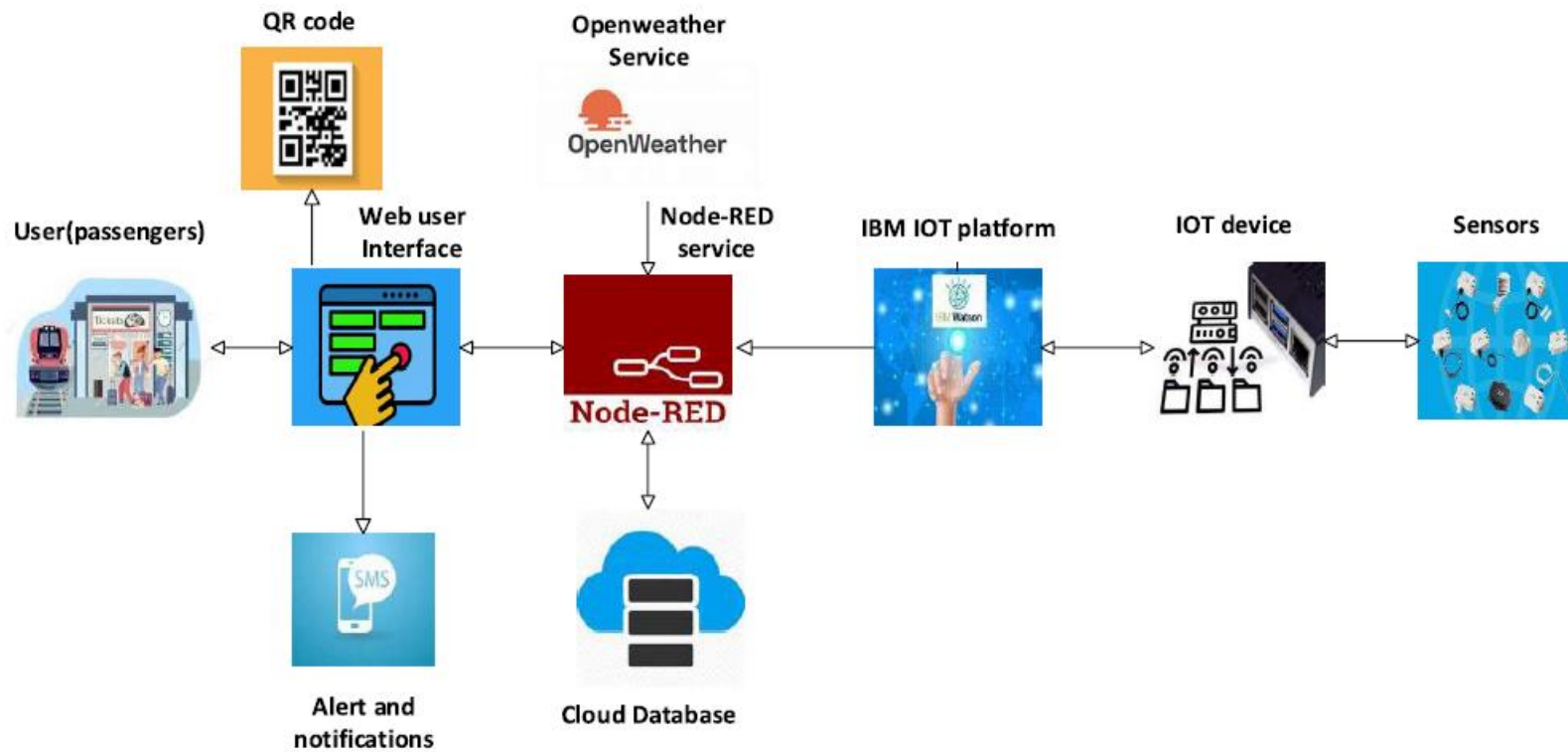


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	
Team ID	PNT2022TMID35843
Project Name	Project - Smart Solution for Railways
Maximum Marks	4 Marks

### Technical Architecture:



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

<b>S.No</b>	<b>Component</b>	<b>Description</b>	<b>Technology</b>
1.	User Interface	Web UI, Mobile App	HTML, CSS, JavaScript
2.	Application Logic-1	Node Red to write logic programs for the system	Python(Node Red)
3.	Application Logic-2	To add and manage control access to IOT service	IBM Watson IOT Platform
4.	Cloud Database	Database Service on Cloud to store user data for reuse and store ticket availability information	IBM Cloudant DB
5.	File Storage	File storage requirements for administration purposes on a periodical basis	Local Filesystem
6.	External API-1	To determine the weather condition at a particular latitude and longitudinal co-ordinates	IBM Weather API
7.	External API-2	To verify and process user information and ID proof	QR code
8.	Infrastructure (Cloud)	Application Deployment on Cloud	IBM WATSON SERVICES

**Table-2: Application Characteristics:**

<b>S.No</b>	<b>Characteristics</b>	<b>Description</b>	<b>Technology</b>
1.	Open-Source Frameworks	MySQL	Relational database management system
2.	Security Implementations	QR code	
3.	Scalable Architecture	3-tier micro service for registration, login and booking	Python(Node-RED)
4.	Availability	User interface for application and web UI	HTML, CSS, JavaScript
5.	Performance	Stores the user provide details and ticket availability status and updation	Cloudant DB