

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

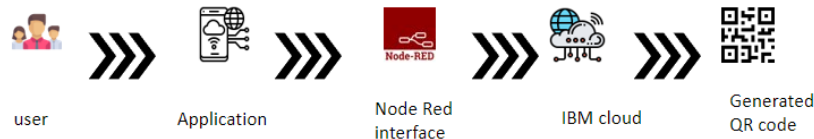
Team ID	PNT2022TMID 37954
Project Name	Project – Smart Solution for Railways

Technical Architecture:

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

Example: Order processing during pandemics for offline mode

Reference:



Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI, Mobile App.	Python, IBM cloud

2.	Application Logic-1	The Logic for book ticket in our project is very simple, because	Java / Python
3.	Cloud Database	Database Service on Cloud	IBM Cloud.
4.	File Storage	In storing files the user must give a correct information of them.	IBM Block Storage.
5.	External API-1	We are using live location API for tracking.	Railways Location API.
6.	External API-2	And also using API to check ticket availability, and Adhar API.	Ticket availability API, Adhar API

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	MIT app inventor, NODE RED.	Technology of Opensource framework
2.	Security Implementations	Access controls implemented, use of firewalls	Encryptions.
3.	Scalable Architecture	3 – tier, Micro-services.	API
4.	Availability	Use of load balancers, distributed servers.	Cloud, node red.

References:

<https://c4model.com/>

<https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/>

<https://www.ibm.com/cloud/architecture>

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>

