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

| Date                                                     | 03 October 2022  |
|----------------------------------------------------------|------------------|
| Team ID                                                  | PNT2022TMID27835 |
| oject Name Airlines Data Analytics for Aviation Industry |                  |
| Maximum Marks                                            | 4 Marks          |

## **Technical Architecture:**

The Deliverable shall include the architectural diagram as below and the information as per the table 1 & table 2

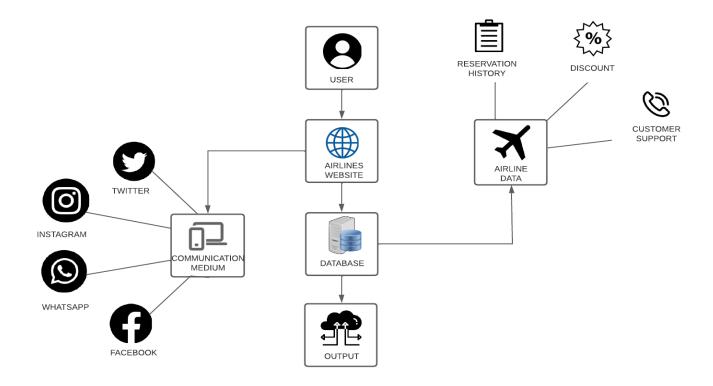


Table-1 : Components & Technologies:

| S.No | Component                       | Description                                                                                            | Technology                                                        |
|------|---------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1.   | User Interface                  | How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.                              | HTML, CSS, JavaScript / Angular Js / React Js etc.                |
| 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, IBM Cloudant etc.                                        |
| 7.   | File Storage                    | File storage requirements                                                                              | IBM Block Storage or Other Storage<br>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          | Purpose of Machine Learning Model                                                                      | Object Recognition Model, etc.                                    |
| 11.  | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration: | Local, Cloud Foundry, Kubernetes, etc.                            |

**Table-2: Application Characteristics:** 

| S.No | Characteristics          | Description                                                                                                               | Technology                                             |
|------|--------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 1.   | Open-Source Frameworks   | List the open-source frameworks used                                                                                      | Technology of Opensource framework                     |
| 2.   | Security Implementations | List all the security / access controls implemented, use of firewalls etc.                                                | e.g. SHA-256, Encryptions, IAM<br>Controls, OWASP etc. |
| 3.   | Scalable Architecture    | Justify the scalability of architecture (3 – tier, Micro-services)                                                        | Cognos                                                 |
| 4.   | Availability             | Justify the availability of applications (e.g. use of load balancers, distributed servers etc.)                           | Cognos                                                 |
| 5.   | Performance              | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc. | Dashboard,Reports,Stories                              |