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

Date	15 October 2022
Team ID	PNT2022TMID35478
Project Name	Machine Learning-Based Predictive Analytics for Aircraft Engine
Maximum Marks	4 Marks

Technical Architecture:

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

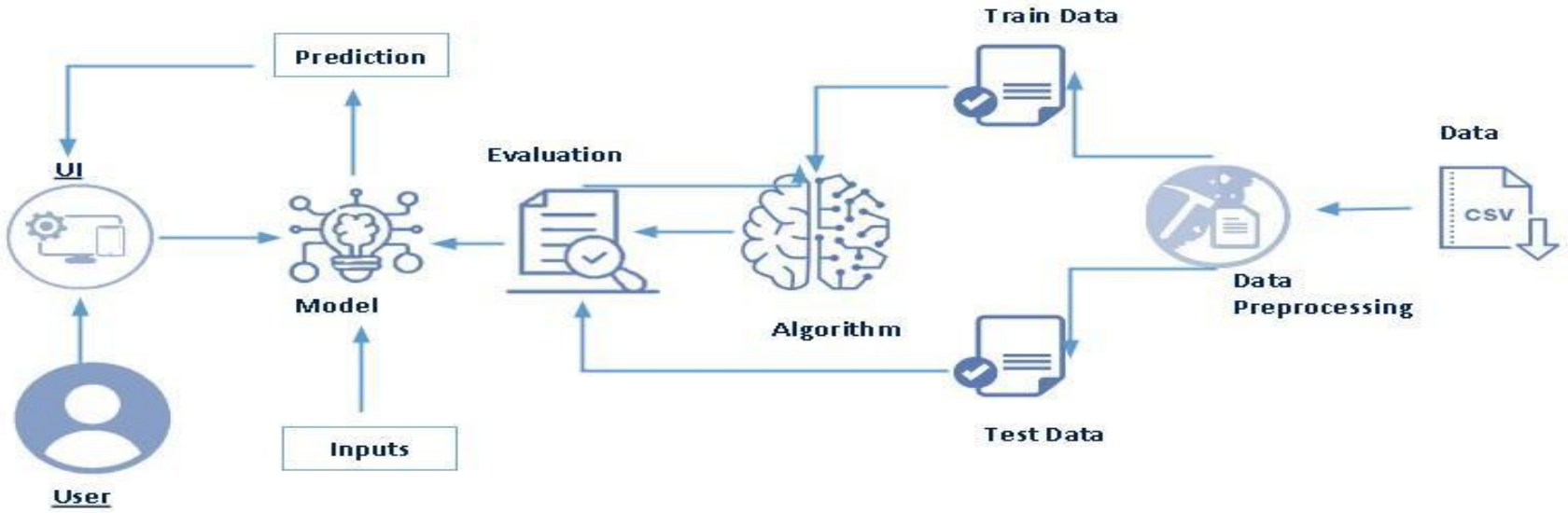

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user Airline associations interact with the tool	Python and required libraries
2.	Application Logic-1	Logic for a process in the tool	Python
3.	Application Logic-2	Logic for a process in the tool	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the tool	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 Service or Local Filesystem
8.	External API-1	Purpose of External API used in the tool	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the tool	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Decision making model
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 (only accesible by the authorised officials)	e.g. Access limited for specified users or only for registered accounts
3.	Scalable Architecture	Justify the scalability of architecture	Technology used
4.	Availability	Justify the availability of tool	IBM cloud
5.	Performance	Design consideration for the performance of the tool	Online Deployment to IBM cloud