

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

Date	17 October 2022
Team ID	PNT2022TMID37576
Project Name	Project – Developing a flight delay prediction model using machine learning
Maximum Marks	4 Marks

Technical Architecture:

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

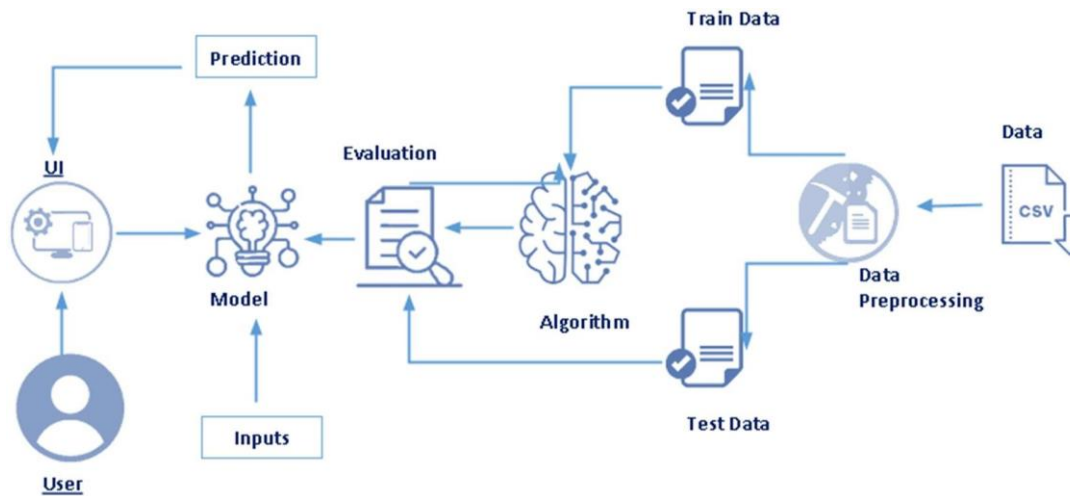


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	This make predictions about the future delays, taking help of Regression Analysis using regularization technique used in Python.	Python
3.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
4.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
5.	File Storage	File storage requirements	Local Filesystem
6.	External API-1	Defines the communication between the customer and the administration	Flask(python)
7.	Machine Learning Model	To predict flight delay model	Object Recognition Model, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open source software is that by which the source code or the base code is usually available for modification or enhancement	Flask(python)
2.	Security Implementations	The security measures can be grouped into two types; standardized screening techniques, which all passengers must undergo and elevated-risk	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.

S.No	Characteristics	Description	Technology
		screening for which only a sub-set of passengers are selected.	
3.	Scalable Architecture	Does not affect the performance even though used by many users.	Flask or ML
4.	Availability	Anyone who is authorised.	Flask or ML
5.	Performance	High delay prediction accuracy.	Flask or ML