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

Date	16 October 2022
Team ID	PNT2022TMID29701
Project Name	Project – Flight Delay Prediction Model using ML
Maximum Marks	4 Marks

Technical Architecture:

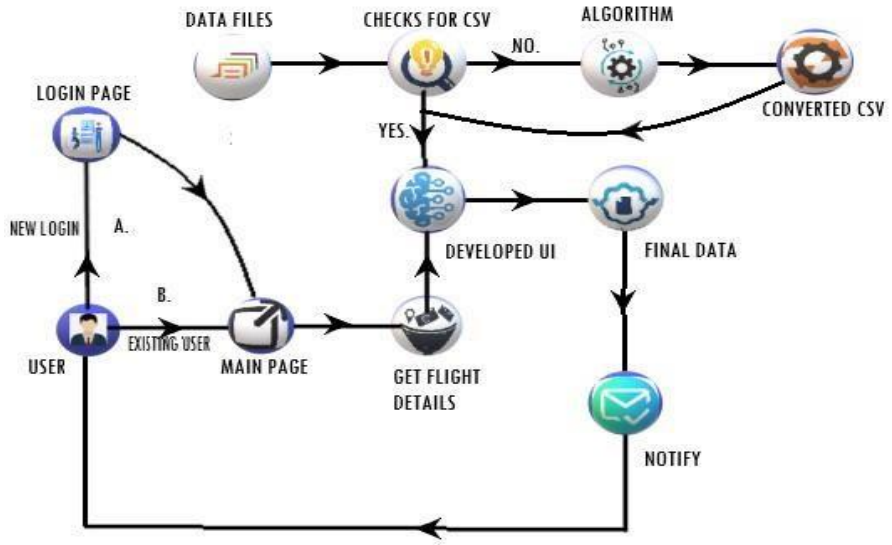

Table-1 : Components & Technologies:

S. No	Component	Description	Technology
1.	Application Interface-1	Logic for a process in the application	HTML, CSS
2.	Application Interface-2	Logic for a process in the application-prediction	Java / Python
3.	Database	Flight detail in CSV files	HTML, Python, Flask
4.	Cloud Database	Database Service on IBM Cloud	IBM DB2, IBM Clouding, IBM Watson etc.
5.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
6.	UI Model	Purpose of Machine Learning Model IBM Cloud	Delay Prediction Model, etc.
7.	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 Open source framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro services)	Technology used Jupyter notebook
S .No	**Characteristics**	**Description**	**Technology**
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used IBM cloud deployment
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used Spyder