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

Date	17 October 2022
Team ID	PNT2022TMID08017
Project Name	Developing A Flight Delay Prediction Model Using Machine Learning
Maximum Marks	4 Marks

Technical Architecture:

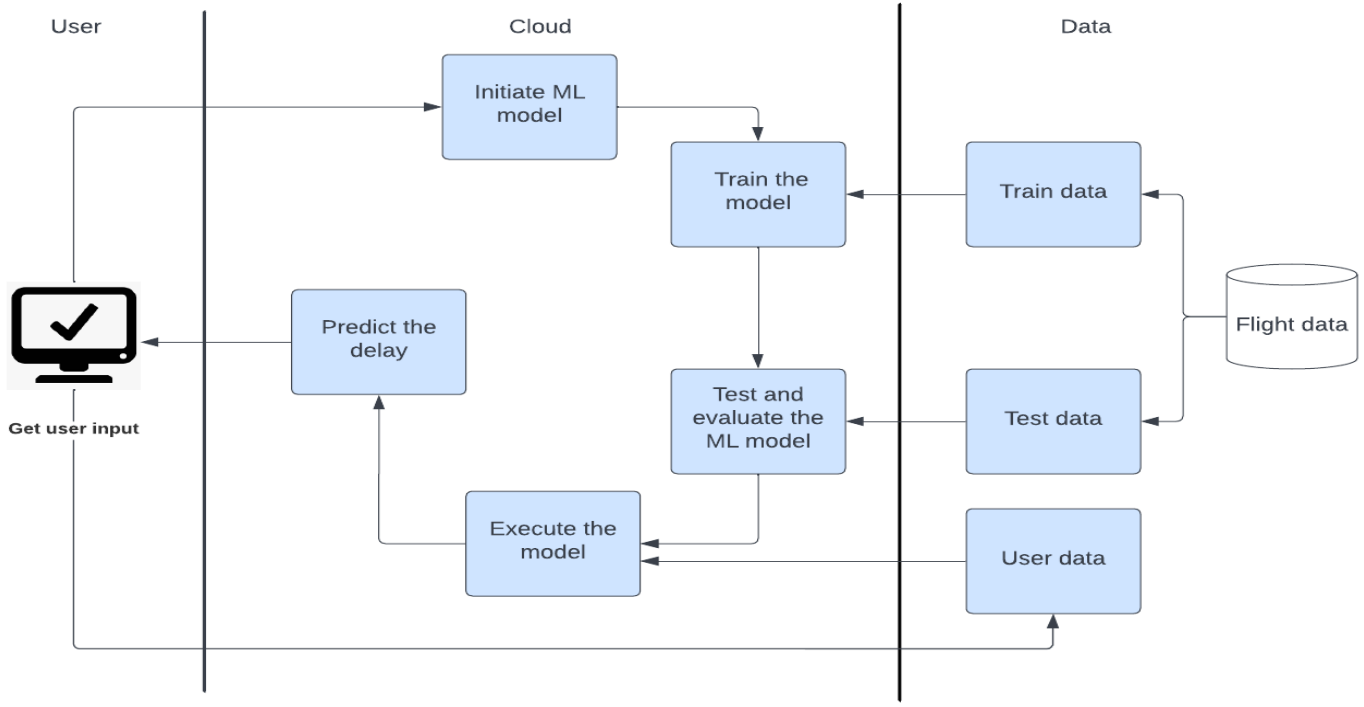

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts through web application	HTML, CSS, JavaScript ,Node Js, Flask,etc.
2.	Application Logic-1	Develop a ML model	Python
3.	Application Logic-2	Select and deploy the best Ml model	IBM Watson STT service
4.	Application Logic-3	Integrate the model with python flask	IBM Watson ,Flask framework.
5.	Database	Structures flight data	MySQL.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant .
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	Machine Learning Model	Machine Learning Model to predict the delay	Logistic regression , Decision tree classifier,SNN.
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration :Web browser. Cloud Server Configuration : IBM cloud	Flask,IBM Watson.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask,Node js,Jupyter Notebook,Google colab.	Python
2.	Scalable Architecture	Micro-services	IBM Watson
3.	Availability	The uptime of the web servers and dependent servers	IBM cloud
4.	Performance	The range of users can access the web application	IBM Watson