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

Date	01 November 2022
Team ID	PNT2022TMID13052
Project Name	Data Analytics fro DHL Logistics Facilities
Maximum Marks	4 Marks

Technical Architecture:

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

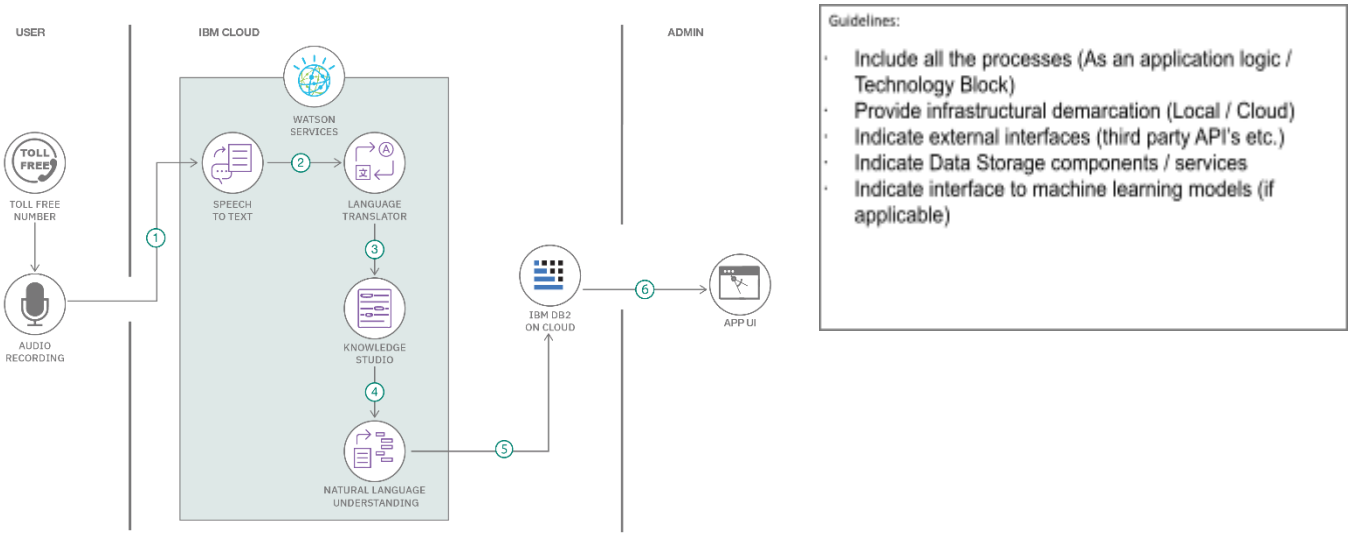

Table-2: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User Uploads the CSV or Excel format files into the Web Pages	HTML, CSS, JavaScript
2.	Application Logic-1	The user data will pass into the IBM Cloud for storage and act as a data source.	IBM Cloud
3.	Application Logic-2	In cloud data will be fetched by the cognos analytical tool for data analysis	IBM Cognos Analytics Tool
4.	Application Logic-3	The Pre-trained dashboards will be present to perform analysis on the incoming data.	IBM Cognos Analytics Tool
5.	Database	Data will be retrieved from cloud.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant

7.	File Storage	Customer sales data is uploaded in cloud through interface.	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	To perform data analysis on the user data.	IBM Cognos Analytics tool
9.	External API-2	To built the machine learning model for classification.	Jupyter Notebook
10.	Machine Learning Model	To do the predictive analysis on the Input Data.	Predictive Analysis Model
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Using the Flask cloud server. Cloud Server Configuration : IBM Cloud.	Local, Cloud Foundry

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.	SHA-256, Encryptions, IAM Controls, OWASP
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	IBM Cloud
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	IBM Cognos
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	CDN