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

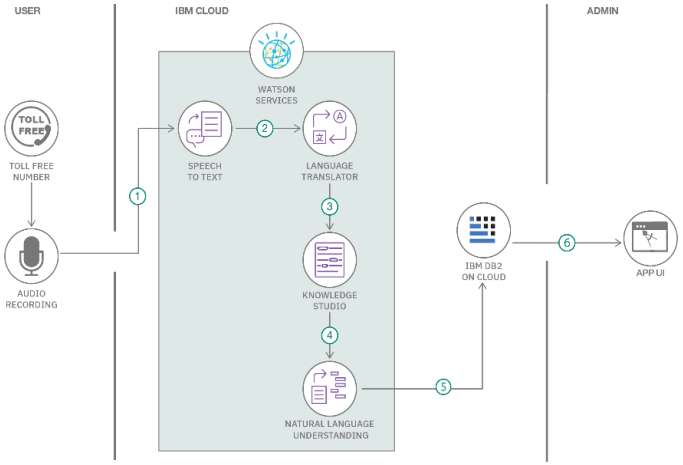
Date	15 May 2023
Team ID	PNT2022TMID01575
Project Name	Project – A Reliable Energy Consumption Analysis System for Energy-Efficient Analysis.

Technical Architecture:

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

Example: Order processing during pandemics for offline mode

Reference: https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/



Guidelines:

- Include all the processes (As an application logic / Technology Block)
- Provide infrastructural demarcation (Local / Cloud)
- Indicate external interfaces (third party API's etc.)
- Indicate Data Storage components / services
- Indicate interface to machine learning models (if applicable)

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML/Flask etc.
2.	Application Logic-1	Login for a process in the application	Java / Python
3.	Application Logic-2	Input for a process in the application	python
4.	Database	Data Type, Configurations etc.	MySQL
5.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
6.	File Storage	File storage requirements	Storage Service or Local Filesystem
7.	Machine Learning Model	Purpose of Machine Learning Model	Regression and Classification Model
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Flask ,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 Collab with Flask
2.	Scalable Architecture	Justify the scalability of architecture (2 – tier, Micro-services)	Machine Learning
3.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Machine Learning
4.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Machine Learning

References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

https://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d