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

Date	29 October 2022
Team ID	PNT2022TMID35942
Project Name	Project - AI based discourse for Banking Industry
Maximum Marks	4 Marks

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

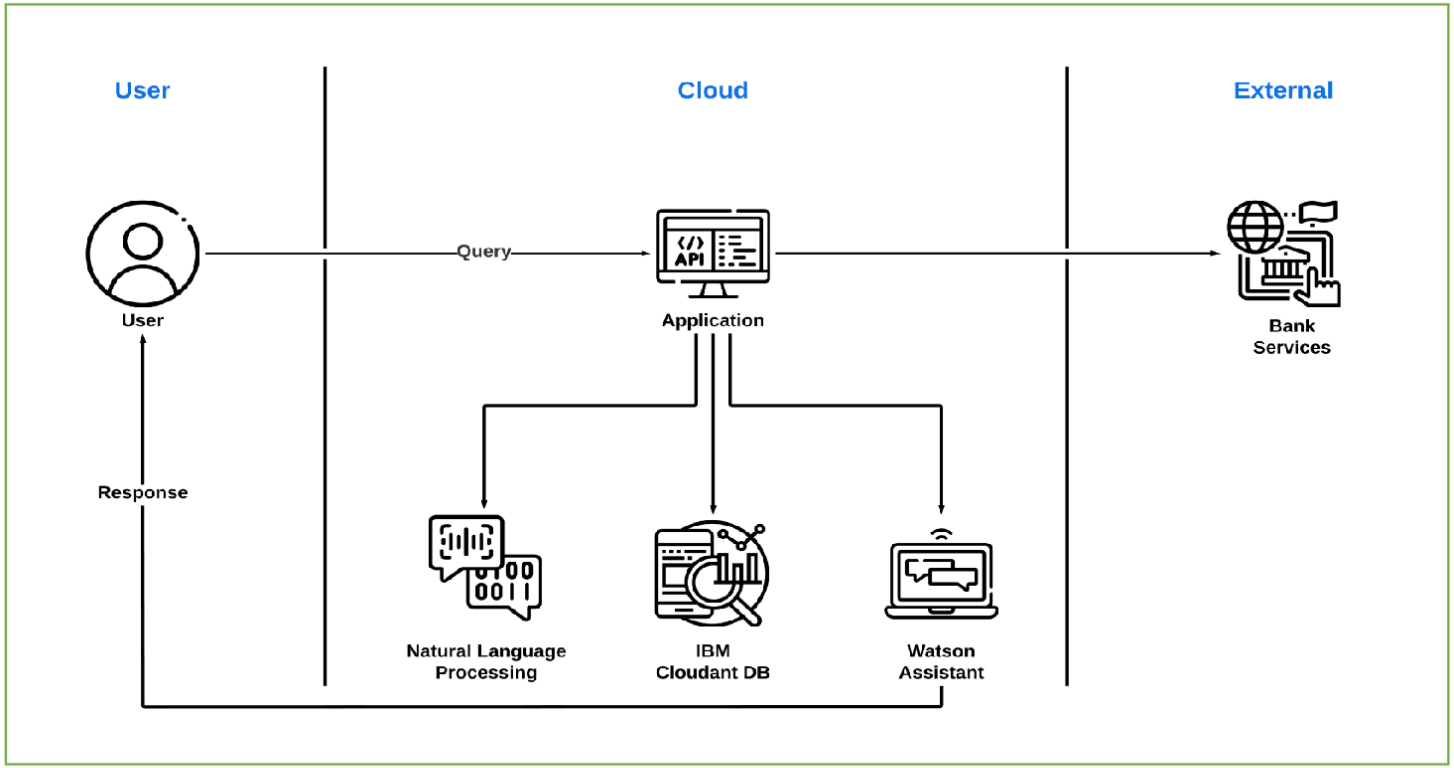

Table-1: Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	User interacts with the system through the Chatbot	Python / Flask
2.	Application Logic-1	System is trained with queries and answers for Net Banking actions, account creation.	IBM Watson Assistant
3.	Application Logic-2	System is trained with queries and answers for Loan actions, general queries.	IBM Watson Assistant
4.	Application Logic-3	System is trained with queries and answers for Savings account actions	IBM Watson Assistant
5.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant.
6.	External API-1	API supports Artificial Intelligence to support super intelligent bots.	Flask
7.	Deep Learning Model	Deep learning model can be used for Natural Language Processing	Natural Language Processing
8.	Infrastructure (Server / Cloud)	We will deploy the AI model on the cloud server using Flask in the webpage	Python Flask

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	IBM Watson, Google collab, Anaconda, Flask	Python, Flask, Deep learning, IBM Watson
2.	Security Implementations	IBM Cloud	Certified IBM Watson for encrypted file systems, Encrypted storage systems, Key management systems
3.	Scalable Architecture	The proposed model can be updated based on the demands and suggestions of the customers. System can be trained with new queries whenever required.	IBM Watson Assistant
4.	Availability	The AI Chatbot is made available to the users at any point of time	IBM Watson Assistant
5.	Performance	The system can be trained for Loan actions, savings account actions, general queries, net banking queries in the most efficient way along with Natural Language Processing.	IBM Watson Assistant

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