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

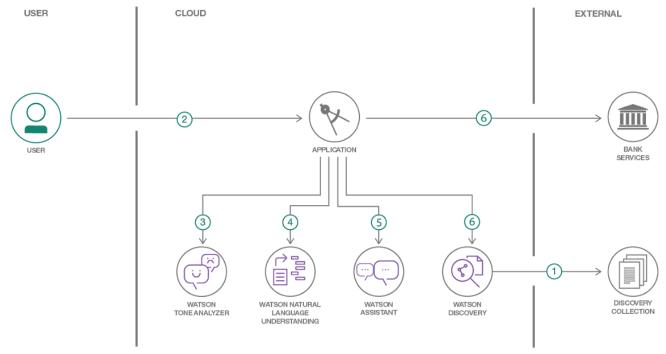| Date	03 October 2022
Team ID	PNT2022TMID45005
Project Name	AI based discourse for Banking Industry
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Interface through which the user interacts with application.	Python / Flask
2.	Application Logic-1	The system is trained in such a way that it solves queries related to Savings Account	IBM Watson Assistant
3.	Application Logic-2	The system is trained in such a way that it solves queries related to Loan queries.	IBM Watson Assistant

4.	Application Logic-3	The system is trained in such a way that it solves queries regarding Net Banking and other general queries.	IBM Watson Assistant
5.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant.
6.	Machine Learning Model	Machine learning models help in the process of enchancing chat bot responses.	Natural Languages Processing
7.	Infrastructure (Server / Cloud)	Chatbot would be integrated to a flask web page and deployed on a Cloud Server	Local, IBM Cloud.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	The proposed model is incorporated with Flask which is an open-source framework used for developing web applications using python, implemented on Werkzeug and Jinja2.	Flask
2.	Security Implementations	IBM Cloud encrypts the data in database and storage services with built-in encryption. For higher levels of data protection, you can manage the encryption keys that encrypt the data at rest. For sensitive data, gain control of encryption keys by using Bring Your Own Key (BYOK) with IBM Cloud Key Protect.	IBM Cloud
S.No	Characteristics	Description	Technology
3.	Scalable Architecture	The chat bot can be enchanced by creating and adding intents and by building dialog, action skills.	IBM Watson Assistant
4.	Availability	The chat bot is made available 24 * 7	IBM Watson Assistant

5.	Performance	Watson Assistant provides customers with fast, consistent and accurate answers across any application, device or channel. Using AI, Watson Assistant learns from customer conversations, improving its ability to resolve issues the first time while removing the frustration of long wait times, tedious searches and unhelpful chatbots.	IBM Watson Assistant