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

Date	15 October 2022
Team ID	PNT2022TMID07052
Project Name	Project - AI Based Discourse For Banking Industry
Maximum Marks	4 Marks

Technical Architecture:

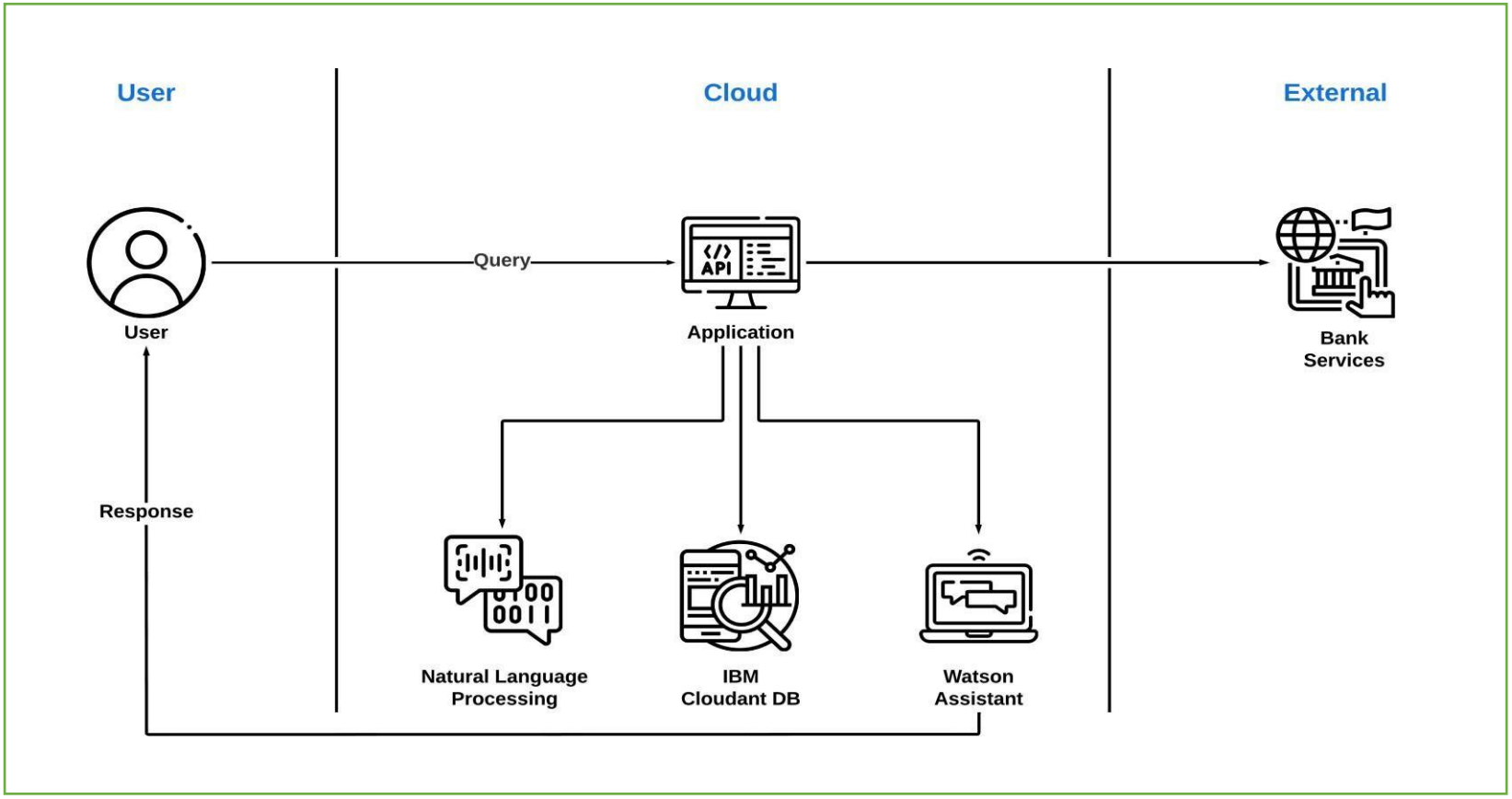

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Bot Preview	As they have an easily accessible environment, a user interacts with the Bot to ask queries.	HTML, CSS, JavaScript
2.	Application Logic-1	On the Bot's message bar, the user can type questions.	Python / IBM Watson Assistant
3.	Application Logic-2	Frequently Asked Questions (FAQ) could be used by users.	IBM Watson STT service
4.	Application Logic-3	Users can examine fresh updates and be alerted of recent additions from the bank.	IBM Watson Assistant
5.	Cloud Database	Queries are predicted with solutions and stored in the cloud to be retrieved whenever they are needed.	IBM Cloudant DB
6.	External API-1	It gives your client application runtime methods for sending user input to an assistant and receiving a response.	Watson Assistant v2 API
7.	External API-2	An on-premises and cloud-based enterprise-grade platform for developing, securing, controlling, sharing, monetizing, and analysing customized APIs.	IBM Cloud API
8.	Deep Learning Model	It learns to execute classification tasks directly from text and achieves cutting-edge accuracy, sometimes outperforming human performance.	Deep Learning
9.	Infrastructure (Server / Cloud)	On cloud server we will be deploying the chatbot using flask in the web page.	Python Flask

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open - Source Frameworks used	Python Flask, CSS styling framework
2.	Security Implementations	Employing encryption, access control techniques, IBM Cloud.	IBM Watson assistant, IBM Cloudant DB
3.	Scalable Architecture	Bot is built using intents, entities, dialog The Scalability consists of 3 tiers (Web server, Application server, Cloud server)	Web Server - IBM Watson Assistant Application Server - Python Flask Cloud Server - Cloudant DB
4.	Availability	Bot is made available for 24/7 using load balancers, distributed servers.	IBM Cloud
5.	Performance	Responds to about 10,000 consumer questions at the same time.	IBM load balancer, CDN