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

Date	15 October 2022
Team ID	PNT2022TMID30310
Project Name	AI based discourse for Banking Industry
Maximum Marks	4 Marks

Technical Architecture:

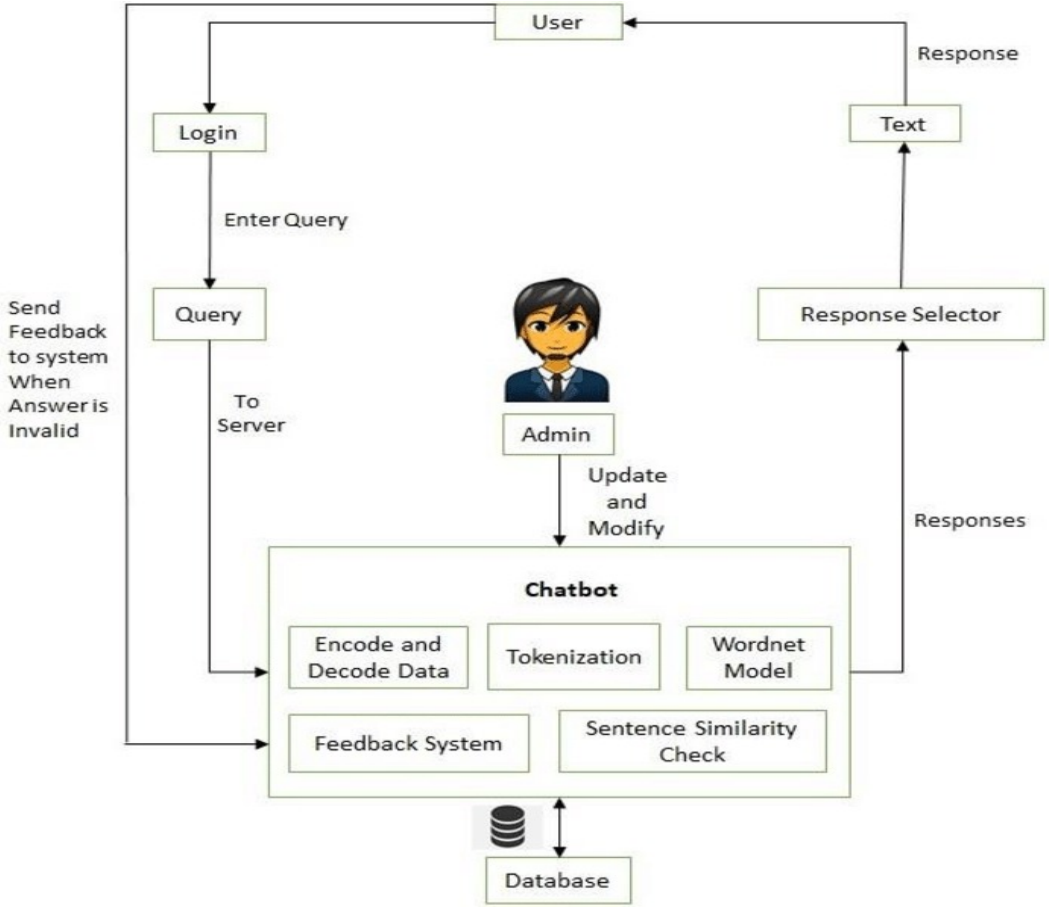

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with application using Chatbot	HTML, CSS, Bootstrap, Javascript
2.	Data Processing	The data from the dataset is used for training the model to predict the delays	Pandas, Numpy, Seaborn, Python Flask, Python, NLP,IBM Watson.
3.	Cloud Database	The dataset is stored on IBM Cloud.	IBM Cloud
4.	Watson Service	build conversational interfaces into any application, device, or channel.	IBM Watson assistant service
5.	External API-1	Collect email id and phone numbers of users used in the chatbot.	ApiAI, BotDelive, etc..,
6.	External API-2	Cloud based platform for developing chatbots for various channels.	NLP, BOTlibre, etc..,
7.	Deep Learning Model	DL Models are used to train the chatbot.	CNN, RNN, seq2seq, Python, NLP, AIML.
8.	Notifications/ Email	The user will receive the updates about new features in banking.	Sendgrid

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-source frameworks used	SendGrid, Python Flask, BootStrap, Javascript, CSS.
2.	Security Implementations	Request authentication using Encryptions	End to End Encryption, Two-Factor authentication.
3.	Scalable Architecture	Based on the received (3–5) our AI engine chooses the next required step and returns the answer message to the customers..	Web Server- HTML, CSS, Javascript Application Server- Python Flask Database Server- IBM Cloud
4.	Availability	The application is available for customers in bank	IBM Cloud Hosting
5.	Performance	Handle queries for thousands of customers simultaneously.	NLP, Design engine.