

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

Date	22 October 2022
Team ID	PNT2022TMID43737
Project Name	AI-based discourse for Banking Industry
Maximum Marks	4 Marks

Technical Architecture:



Table-1: Components & Technologies:

	Component	Description	Technology
1.	User Interface	How the user interacts with the application e.g. WebUI, Mobile App, Chatbot, etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	The logic for a process in the application	Python
3.	Application Logic-2	The logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	The logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations, etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration Cloud Server Configuration	Local, Cloud Foundry, Kubernetes, etc.

Table 2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Anaconda Navigator, Tensor flow, Keras, Flask
2.	Security Implementations	List all the security/access controls implemented, use of firewalls, etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Response time, Throughput, CPU and network usage, etc.
4.	Availability	Justify the availability of applications (e.g. use of load balancers, distributed servers, etc.)	All kinds of users.
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDNs) etc.	Watson Assistant is used to building the chatbot.