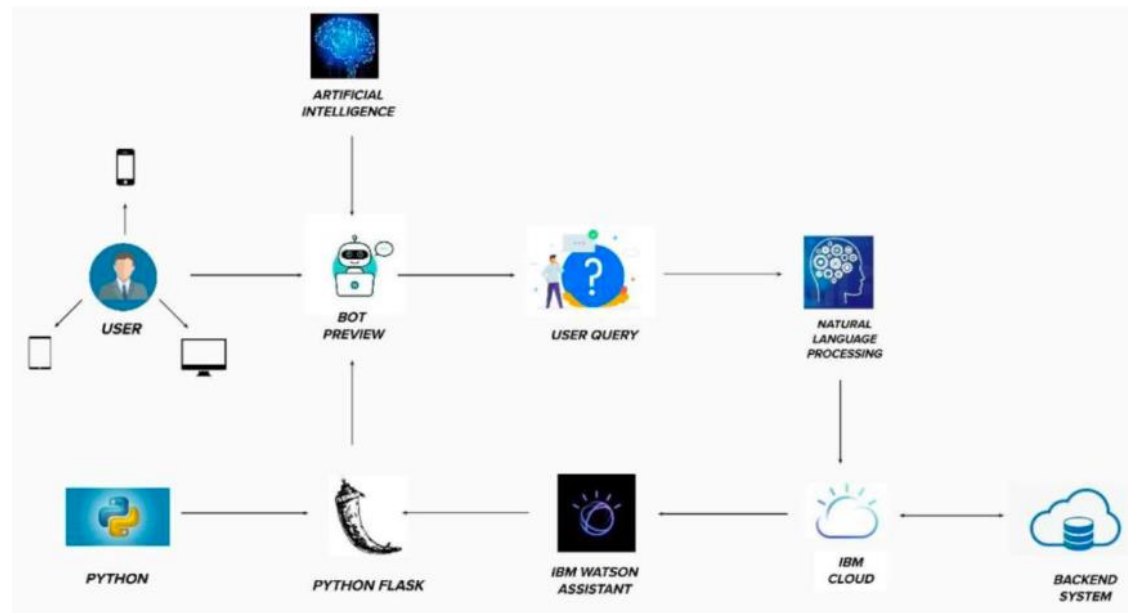


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	26 October 2022
Team ID	PNT2022TMID03901S
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	The unadorned page is presented to the user with a chat interface that has an input box area for user questions.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	An input box field is provided that enables the user to type queries.	Python
3.	Application Logic-2	The user is shown options or frequently asked questions.	IBM Watson STT service
4.	Application Logic-3	Processes answers to specified questions and presents a pertinent answer.	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL
6.	Cloud Database	Every time a query is asked, the cloud is accessed to store both the query and the response.	IBM Cloudant DB
7.	External API-1	For the purpose of sending a query from the application to the cloud, it provides an interface between the application and the cloud.	Watson Assistant v2 API
8.	External API-2	an API for the cloud that supports various cloud-based processes and applications.	IBM Cloud API
9.	Deep Learning Model	It uses the knowledge it has gained through answering many different queries to generate relevant answers to queries with a satisfactory level of accuracy.	Deep Learning
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Flask Application Cloud Server Configuration: IBM Cloud	Python Flask, IBM Cloud, Cloud Foundry, etc.

**Table-2: Application Characteristics:**

S. No.	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python Flask, CSS Frameworks, Anaconda Navigator
2.	Security Implementations	List all the security, use of firewall, General access control and the built-in security features of IBM Cloud are present.	Encryptions, IBM Watson Assistant, IBM Cloudant DB
3.	Scalable Architecture	The client side, the web server, and the cloud server are the three layers of the architecture. Each of these can be extended to meet needs.	Client Side: Flask (Python) Web Server: IBM Watson Assistant Cloud Server: IBM Cloud
4.	Availability	Almost every device that supports an internet browser has access to the chatbot 24/7.	IBM Cloud, Flask (Python)
5.	Performance	Responds to tens of thousands of questions at once.	IBM Load Balancer, IBM Cloud