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

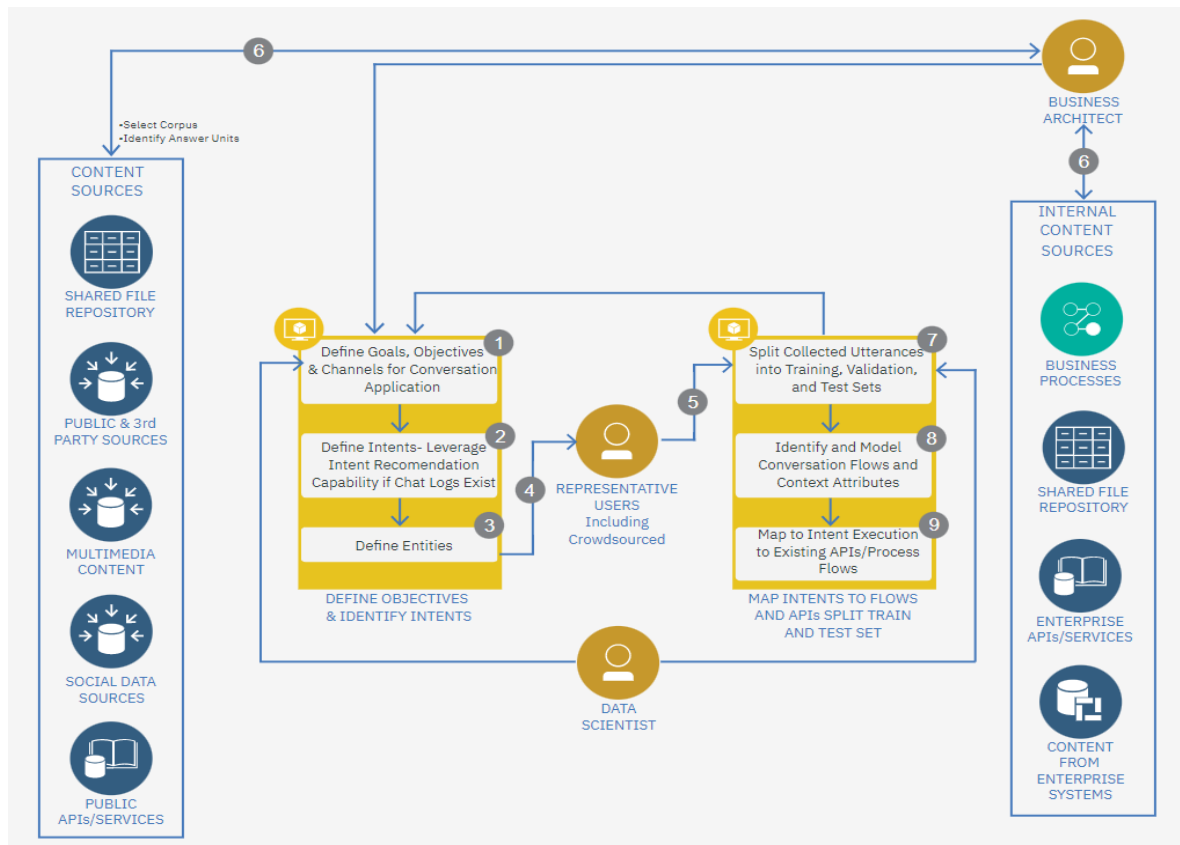| Date	16 October 2022
Team ID	PNT2022TMID35574
Project Name	Project - AI Based Discourse for Banking Industry
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS
2.	Messaging Interface	To integrate the chatbot in another interface	Whatsapp, Facebook, Bank Website
3.	Supervised Learning	Human interference,when you want to improve its conversation flow, add new intents or enrich its knowledge base.	Entity, Intent
4.	API Integration	To integrate chatbot with third-parties via web services	REST APIs
5.	Natural Language Processing	Automatically understand the language of the user.	API.AI
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	Fluid Conversations	Interactive FAQ	QNAmaker from Microsoft
8.	External API-1	To integrate the services of the bank	Corresponding bank's API
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	IBM Watson Assistant	NLP, ML
2.	Security Implementations	Use of firewalls.	Fortinet FortiGate
3.	Scalable Architecture	3 – tier, Micro-services	Docker and Kubernetes
4.	Availability	use of load balancers, distributed servers etc.	Nginx
5.	Performance	Number of requests per sec, use of Cache	AppDynamics