



Hindusthan Institute of Technology
Approved by AICTE, New Delhi, Accredited with
'A' Grade by NAAC (An Autonomous Institution,
Affiliated to Anna University, Chennai) Valley
Campus, Pollachi Highway, Coimbatore – 641 032



AI BASED DISCOURSE FOR BANKING INDUSTRY

NALAIYA THIRAN PROJECT BASED LEARNING

on

**PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY AND
ENTREPRENEURSHIP A PROJECT REPORT**

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BACHELOR OF TECHNOLOGY IN INFORMATION TECHNOLOGY

HINDUSTHAN INSTITUTE OF TECHNOLOGY

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(An Autonomous Institution, Affiliated to Anna University, Chennai)

COIMBATORE – 641 032

November 2022



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INTERNAL MENTOR

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Durga Prasad

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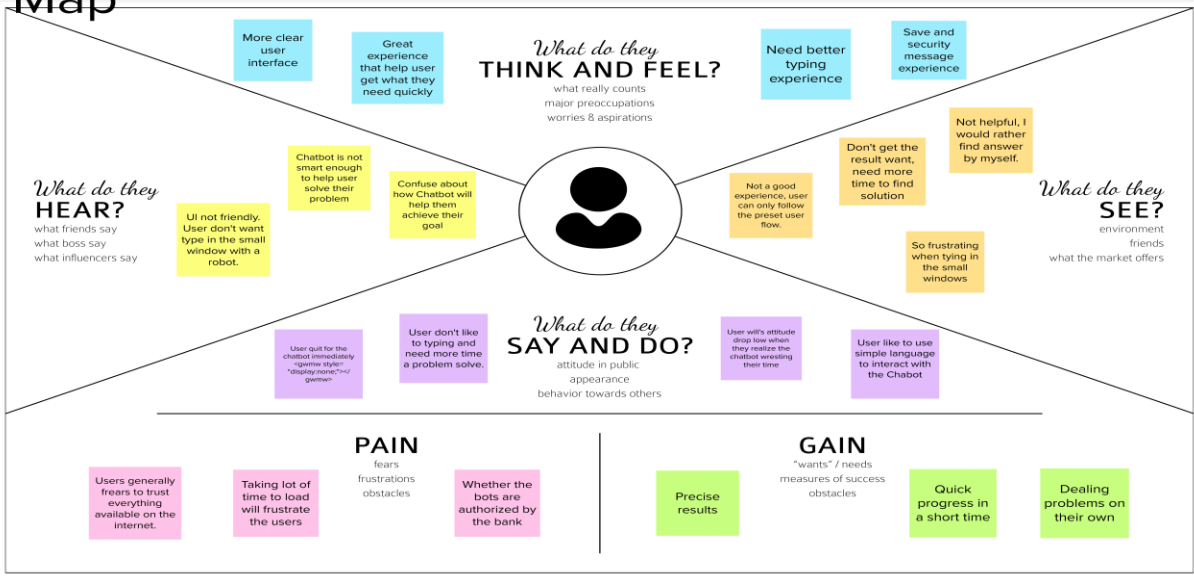
6.References

1. Ideation Phase

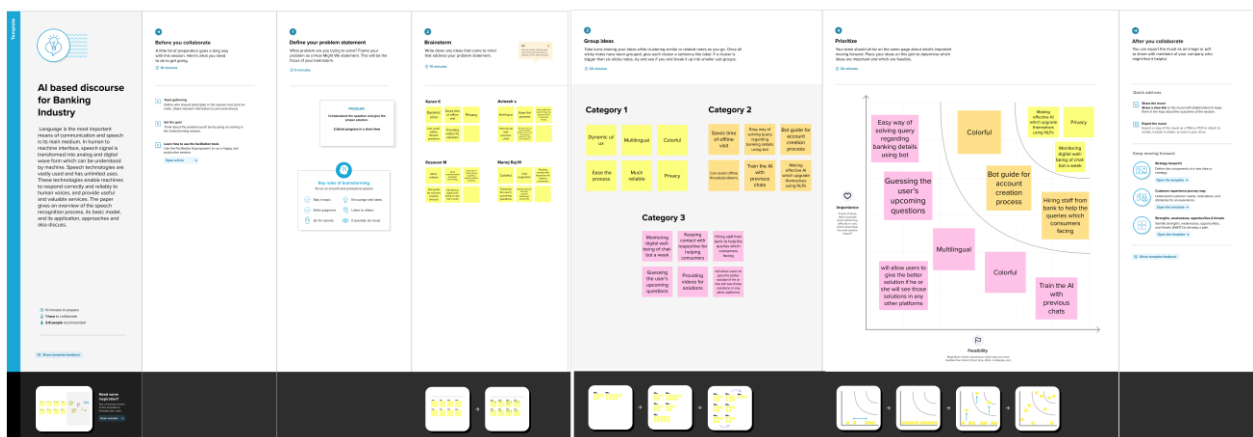
1.1 Empathy Map

AI based discourse for Banking Industry

Empathy Map



1.2 Brainstorming



1.3 Literature Survey:

Existing Papers:

[1]. The Impact of Chat-Bots on the Banking Experience

The Indian banking sector plays a crucial role in the economy of our country and is constantly evolving and innovating its services to enable and to serve its customers better and round the clock to the fullest of their capacity. One of the most revolutionizing step in this regard is the introduction and implantation of chatbots that is redefining the banking experience in many ways.

Advantages:

1. It assists the Banks Marketing Department.
2. It facilitates core Banking Activities.

Disadvantages:

1. Lacking in Multilingual.

[2]. Banking Bot (B-Bot):

In this paper we present a chatbot which is a banking Chatbot called B-BOT which resolves all the bank related queries. The chatbot's model can be divided into three sections – Backend, ML model and Frontend. The main functionality of the chatbot is carried out by Rasa Framework.

Advantages:

1. Use message passing technology for Interaction which gives a better understanding for AI.

Disadvantages:

2. Didn't have Speech Recognition.

[3]. A Review of Chatbots in the Banking Sector

Abstract—Chatbot is a software application that listens to a user's query in natural language and responds accordingly. There is rapid adoption of the latest technologies in banking and chatbots are one of them. Answering customer queries and assisting customers with banking transactions are some of the ways in which it's making an impact on the industry.

Advantages:

1. To avoid involving navigating through a lot of pages to find the information you need.
2. A smart chatbot takes a query from the user in natural language and gives the appropriate response for the same.

Disadvantages:

1. Approach requires large amounts of training data and is difficult to train.
2. User initiated dialogues are error prone because users can say anything they want.

[4]. A study of applications of Artificial Intelligence in banking and finance sector.

Artificial Intelligence (AI) is reckless growing as the go-to technology for companies across the world to personalize experience for individuals. The technology itself is getting enhanced and smarter day-by-day, allowing more and newer industries to adopt the AI for various applications. Banking sector is becoming one of the first adopters of AI and just like other segments, banks are exploring and implementing the technology in various ways.

Advantages:

1. Help them track their financial activities.
2. AI in finance has automated processes and drastically reduced the cost of serving customers.

Our Proposed system Advantages:

Multilingual: Users can switch to their native language and interact with our chatbot.

Dynamic UI: Our chatbot will help to navigate to every position and explain what is what.

Speech Recognition: Users can give voice commands and request replies from our chatbot.

Reference Papers:

[1]. The Impact of Chat-Bots on the Banking Experience published at April 2021.
Author: Geeta Narula, Rakhi Narula.

[2]. Banking Chatbot (B-Bot)

Author: Dr. C. Punitha Devi, Dr. S. Geetha , N. Nagalakshmi , S. Karthiga, V. Suvedha.

Article History: Received: 10 January 2021; Revised: 12 February 2021;
Accepted: 27 March 2021; Published online: 28 April 2021

[3]. A Review of Chatbots in the Banking Sector published at June 2021

Author: Shashank Bairy R, Rashmi R.

[4]. A study of applications at Artificial Intelligence in Banking and Finance Sector published at 32 May 2022.

Author: Dr. Lakshkaushik Dattatraya Puri.

1.4 Problem Statement:

Banking is one the crucial sector, it deals with financial transactions which can be availed by everyone, but banks are not able to resolve the queries of customers at all times related to the products or services in satisfactory way in turn hinders the customer satisfaction. In order to guide the customers throughout all the financial services provided by the bank, an intelligent system has to be introduced to provide people with the best solution possible. The users are bank customers who needs 24/7 service to clear all their queries and guide them through all the banking processes. So, an enhanced and smarter way of interaction with the customers has to be built to ensure efficient delivery of service. In order to overcome the user satisfaction issues associated with banking services, chatbot will provide personal and efficient communication between the user and the bank. It is built to be the overall virtual assistant that can facilitate customers to ask banking- related questions without visiting the bank or calling up customer service centres as well as providing them with relevant suggestions.

Who does the problem affect?	A customer of the bank
What are the boundaries of the problem?	Customers who have queries related to banking or trying to use various services of the bank
What is the issue?	Customers need to visit banks frequently for simple queries. Banks are not able to answer huge volumes of customers queries efficiently.
When does the issue occur?	When the customer is unable to visit a bank
Where does the issue occur?	It occurs in banking industries
Why is it important that we fix the problem?	It addresses the queries of customers immediately and effectively in a cost efficient manner.
What solution to solve this issue?	Chatbot should be able to answer any general banking queries on account creation, loan, net banking, other services etc. AI chatbots can help the customers to complete their work quickly and efficiently.
What methodology used to solve the issue?	Artificial intelligence mimics the human brain in order to make chatting with the chatbot more life- like.

Miro Customer Problem Statement Canvas:





Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A student who just created a bank account	Understand more about the available features of the bank	I have to waste a lot of time at the bank	I have to ask a bank employee about my doubts	irritated
PS-2	A new customer	Learn more about banking	It takes a long time	There is always a long queue as bank employees are busy	frustrated
PS-3	An old customer at the bank	Find out my balance and check my statement	I have to travel to the bank now and then	I have to speak to a bank employee to get the work done	exhausted

2. Project Design Phase - 1

2.1 Problem Solution Fit

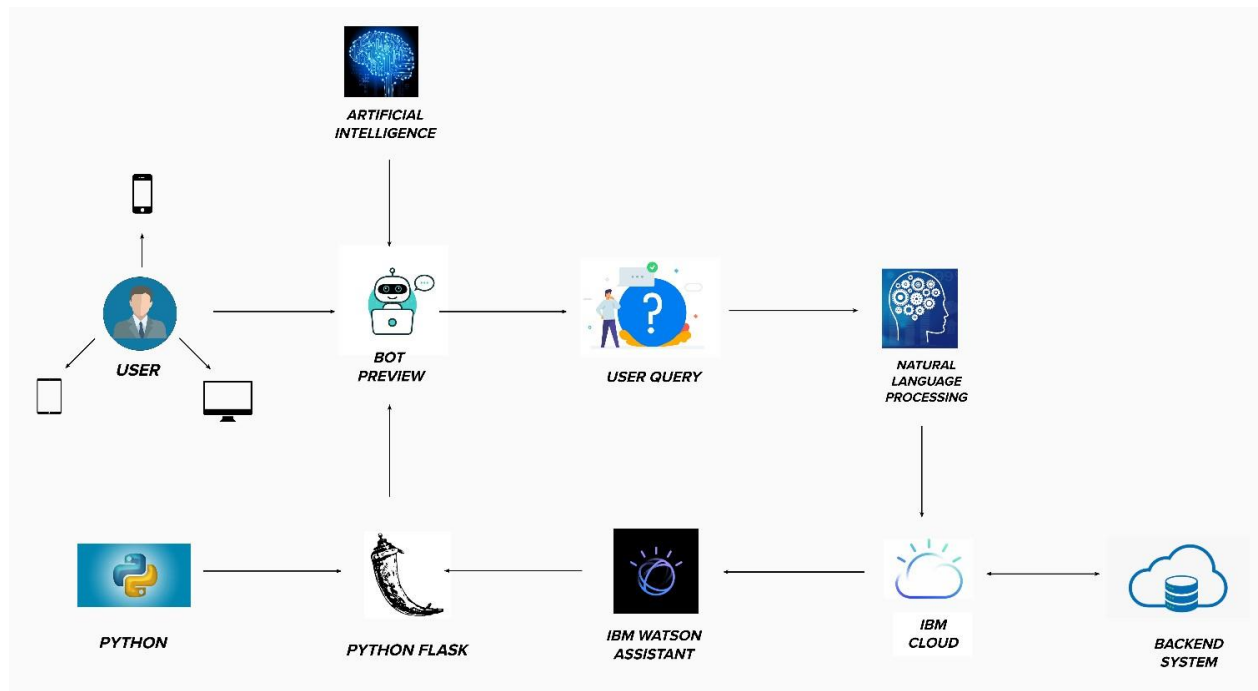
Define CS, fit into CC	1. CUSTOMER SEGMENT(S) Who they are New customers who would like to learn more about the bank and how to create an account Regular customers who would like to access the various services of the bank	6. CUSTOMER CONSTRAINTS Network connection is required Unfamiliarity with/unaware of chatbot, especially among elders Unable to convey themselves properly through chat Safety and privacy concerns	5. AVAILABLE SOLUTIONS Customer care telephone lines and staff at banks are available to the customer's queries. Both of these current methods are time consuming and can involve the customer waiting for a long time to get the answer. A chatbot can squash these issues as they can provide an answer instantly at any time from the customer's phone.	Empower AS, differentiate
Identify RC	2. JOBS-TO-BE-DONE/ PROBLEMS Answering customer queries in a quick and convenient way Convenience of banking guidance anywhere and anytime Cost and time efficiency and improvement	9. PROBLEM ROOT CAUSE Banking is initially a slightly complicated task that people sometimes might want guidance or support while performing certain operations As banking is essential, a lot of people need their queries cleared which requires a huge workforce to match the demand and which can be very costly and still time taking Banks can introduce new features regularly or might update existing features to keep up with changing regulations that can lead to confusion	7. BEHAVIOUR Banks' customer service usually handles queries related to creating a bank account, loans or general banking queries. Currently, customers will have to rely either on customer care lines or will have to physically visit a bank, wait in line for their turn and then speak to a bank staff to clear their queries. Even the telephone lines are known to have a high wait time which can be frustrating.	
Identify strong TR & EM	3. TRIGGERS Word of mouth about how convenient and easy it is to use Watching others use it from home or on the go Instead of waiting in lines at the bank	10. YOUR SOLUTION Customers can access an AI-based chatbot that can be placed in the bank's website. This can then be used to clear the customer's queries, instantly and can be used at any time of the day or from anywhere as long as the customer has an internet connection. This is also a good way for banks to employ a large workforce to clear customer queries. As the queries of the	8. CHANNELS OF BEHAVIOUR They search the web for answers to their queries which are usually scattered and are not reliable. They visit banks and meet the bank staff to clear their queries They call the customer care toll-free number of the bank and speak to a customer care employee	

2.2 Proposed Solution

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Banks are not able to resolve the queries of customers at all times related to the products or services in a satisfactory way which in turn hinders the customer satisfaction. Customers need to visit banks frequently for simple queries.
2.	Idea / Solution description	In order to guide the customers throughout all the financial services provided by the bank, an intelligent system has to be introduced to provide people with the best solution possible.
3.	Novelty / Uniqueness	Chatbots developed using AI should be able to answer any general banking queries on account creation, loan, net banking, other services etc. It addresses the queries of customers immediately and effectively in a cost-efficient manner.

4.	Social Impact / Customer Satisfaction	In order to attain the user satisfaction issues associated with banking services, chatbot will provide personal and efficient communication between the user and the bank. It is built to be the overall virtual assistant that can facilitate customers to ask banking- related questions without visiting the bank or calling up customer service centers as well as providing them with relevant suggestions.
5.	Business Model (Revenue Model)	Employing a chatbot will be a cost-effective solution to clear customer queries for banks. It eliminates the need for a massive customer care workforce and even reduces the workload of the bank employees whose efforts can be used elsewhere.
6.	Scalability of the Solution	AI Chatbots provides 24/7 service to clear all customer queries and guide them through all the banking processes. It supports voice assistance feature and maintains a confidential conversation with customers. It can be scaled as per the requirements of the bank to include answers to queries related to any new feature or service introduced by the bank.

Solution Architecture:



AI based discourse on Banking Industry

Team ID: PNT2022TMD10267

Entice How does someone initially become aware of the process?	Enter What do people experience as they begin the process?	Engage In the core moments in the process, what happens?	Exit What do people typically experience as the process finishes?	Extend What happens after the experience is over?
Steps What does the person (or group) typically experience?	Suggestions from bank Chatbots provide quick replies for customer queries	Convenience Customers feel it easy to use chatbots at their convenience	Reliability Chatbots provide accurate information to customer queries	Scalable Chatbots enhance customer satisfaction
Interactions What interactions do they have at each step along the way? • People: Who do they see or talk to? • Places: Where are they? • Things: What digital touchpoints or physical objects would they use?	Offers convenience Reduces time for users to visit banks regularly	Simple UI Chatbots have a user-friendly interface	Accessibility Chatbots are accessible at anytime and at anywhere	Cost effective Chatbots are easy to use with less cost
Goals & motivations At each step, what is a person's primary goal or motivation? ("Help me..." or "I want to avoid...")	Customers should be able to type their queries easily Chatbots should be able to interpret the customer queries	Customers have information at their fingertips Chatbots provide various options for customers to interact and they may choose options at their convenience	Customers can get tasks done easily by chatbots Customers can interact with chatbots on a variety of platforms	Customers feel easier to interact with chatbots to clear their queries Chatbots are efficient in satisfying customer needs
Positive moments What steps does a typical person feel enjoyable, productive, fun, motivating, delightful, or exciting?	Customers enjoy convenience of getting queries started from home Free to use	Customer does not need to wait to get their queries answered Human help and assistance is not required	Customers feel secure in using chatbots at end Customers feel their work load gets reduced by using chatbots at end	Customers need not be concerned on banking by chatbots Chatbots make customers to have more on banking features which avoids them being frustrated
Negative moments What steps does a typical person feel frustrating, confusing, engaging, costly, or time-consuming?	Not as comfortable as speaking to a human Requires internet	Certain amount of technical knowledge and skills required A greater probability of misunderstandings to occur	Customers are not satisfied if chatbot doesn't provide good transaction with them Customers become angry if chatbot doesn't provide good transaction with them	Customers need to look for alternative options if chatbot doesn't provide good transaction with them If chatbot training is not proper customers are unsatisfied
Areas of opportunity How might we make each step better? What ideas do we have? What have others suggested?	Chatbots are available 24x7 Chatbots provide privacy	Chatbots provide accurate answers Chatbots have a customizable user interface	Chatbots are easily accessible to customers at all convenience Chatbots are designed and not trained to ensure customer queries	Chatbots improve customer satisfaction Chatbots are available in various

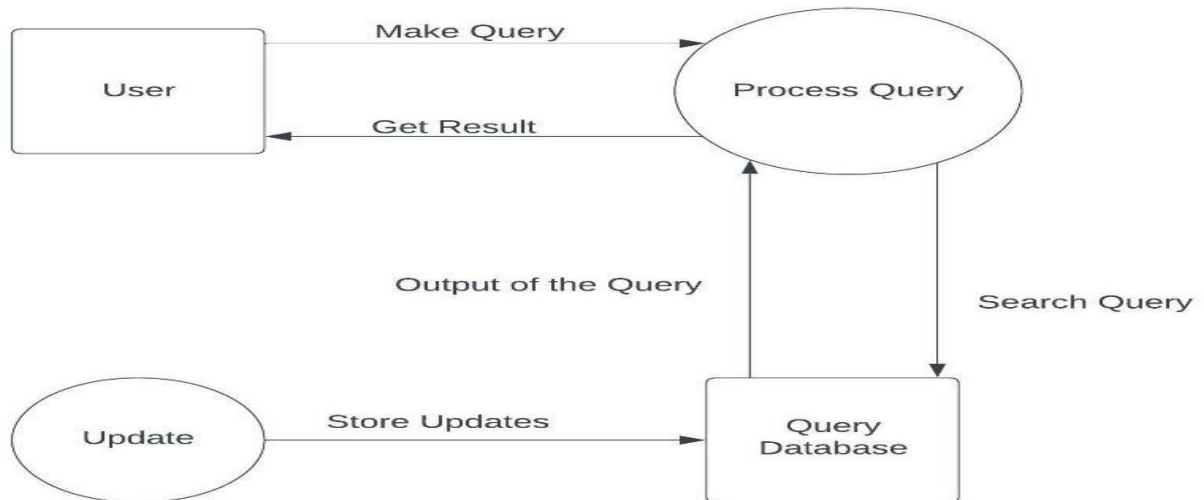
3. Project Design Phase-II

3.1 Data Flow Diagrams:

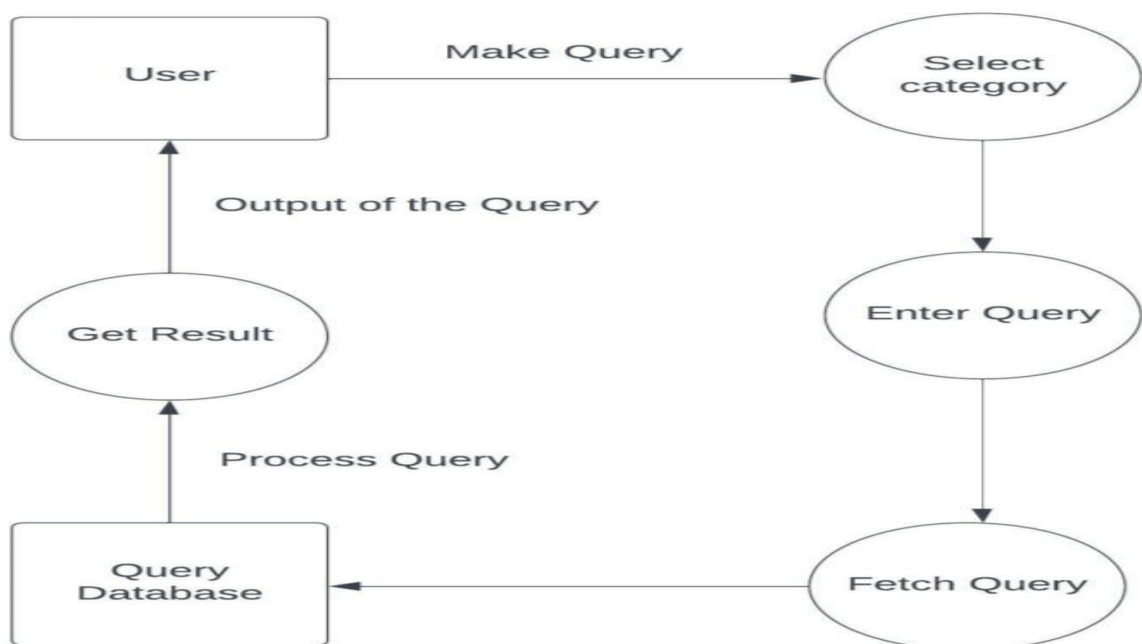
LEVEL 0



LEVEL 1



LEVEL 2



User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile or Web user)	Savings Account Related Actions	USN-1	As a user, in the Savings Account option, I can select Types of Savings Account to get details regarding documents required for creating that savings account.	I can clear my queries regarding types of savings account	High	Sprint-1
		USN-2	As a user, I can check the Interest Rates of Savings Account	I can clear my queries regarding interest rates of savings account	High	Sprint-1
		USN-3	As a user, I can check the Minimum Balance of Savings Account	I can clear my queries regarding minimum balance of savings account	Medium	Sprint-1
	Current Account Related Actions	USN-4	As a user, I can choose the Type of Company to know the information on documents to be submitted for creating current account	I can clear my queries regarding types of companies	High	Sprint-1
		USN-5	As a user, I want to get details on procedure to close my Current Account	I can clear my queries regarding current account closure	High	Sprint-1
	Loan Account Related Actions	USN-6	As a user, I can choose the Type of Loans to know the information on choosing an essential loan scheme	I can clear my queries regarding types of loan account	High	Sprint-1
		USN-7	As a user, I can check the Loan Amounts that can be offered for corresponding Loan Accounts chosen	I can clear my queries regarding loan amounts of loan account	High	Sprint-2
		USN-8	As a user, I can check the Status of Loan for my Loan Accounts	I can clear my queries regarding loan status of loan account	Low	Sprint-2
		USN-9	As a user, I want to get the procedure details for Currency Conversion facility of my bank account	I can clear my queries regarding currency conversion facilities of bank account	Low	Sprint-2
	General Queries Related Actions	USN-10	As a user, I want to check my CIBIL score for my loan application and to ensure whether my loan application is approved by the bank.	I can clear my queries regarding CIBIL score of loan application	Medium	Sprint 3
		USN-11	As a user, I want to get the procedure details for maintaining Storage Locker facility of my bank account	I can clear my queries regarding storage locker facilities of bank account	High	Sprint-3

3.2 Solution Requirements (Functional & Non-functional)

Functional Requirements:

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Savings Account Related Actions	<ul style="list-style-type: none"> Type of Savings Account Creation Details Interest Rate Minimum Balance Debit Card Credit Card
FR-2	Current Account Related Actions	<ul style="list-style-type: none"> Type of Company Current Account Closure Steps Update GSTIN Zero Balance Current Account
FR-3	Loan Account Related Actions	<ul style="list-style-type: none"> Type of Loan How long for approval Available Loan Amounts Loan Status Joint Loan
FR-4	General Queries Related Actions	<ul style="list-style-type: none"> Bank Working Days List of Braches Storage Locker Facility Currency Conversion Facility CIBIL Find a nearest branch

FR-5	Net Banking Related Actions	<ul style="list-style-type: none"> • Login Steps • Change Net Banking Password • Daily Limit • Types of Fund Transfer • Add Beneficiary
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Non-functional Requirements:

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	Chatbots developed using AI should be able to answer any general banking queries on account creation, loan, net banking, other services etc. It addresses the queries of customers immediately and effectively in a cost efficient manner.
NFR-2	Security	The AI Chatbot maintains a confidential conversation with customers. Chatbot will provide personal and efficient communication between the user and the bank.
NFR-3	Reliability	Chatbots are trained very well using AI to provide solutions for the popular and frequently asked questions, thereby providing the best suited service quickly. Thus AI Chatbots has a reliable end-user experience.
NFR-4	Performance	AI Chatbots are a great way to overcome the limitation of workload of humans. There can be multiple instances of a single chatbot inquiring different people at the same time. Such chatbots work in real time with no need for the customers to wait. This ensures faster, easier and more efficient face-time with customers.
NFR-5	Availability	AI Chatbots provide 24/7 service to clear all customer queries and guide them through all the banking processes. It is available to anyone with access to the internet with basic hardware.
NFR-6	Scalability	AI Chatbots are helping banking industry to scale their customer service and to improve customer service satisfaction at the same time. It can be scaled as per the requirements of the bank to include answers to queries related to any new feature or service introduced by the bank.

3.3 Technology Stack (Architecture & Stack)

Technical Architecture Steps:

- User queries to the Chat Bot
- Bot previews the query
- Query is transferred to Watson Assistant
- Natural Processing Language is used to understand the query
- Watson Assistant sends the query
- Watson finds the relevant response from cloud database
- Queries and responses (sent and received) is stored in cloud database
- All queries and related information is sent to the bank for improvement

3.4 Technical Architecture :

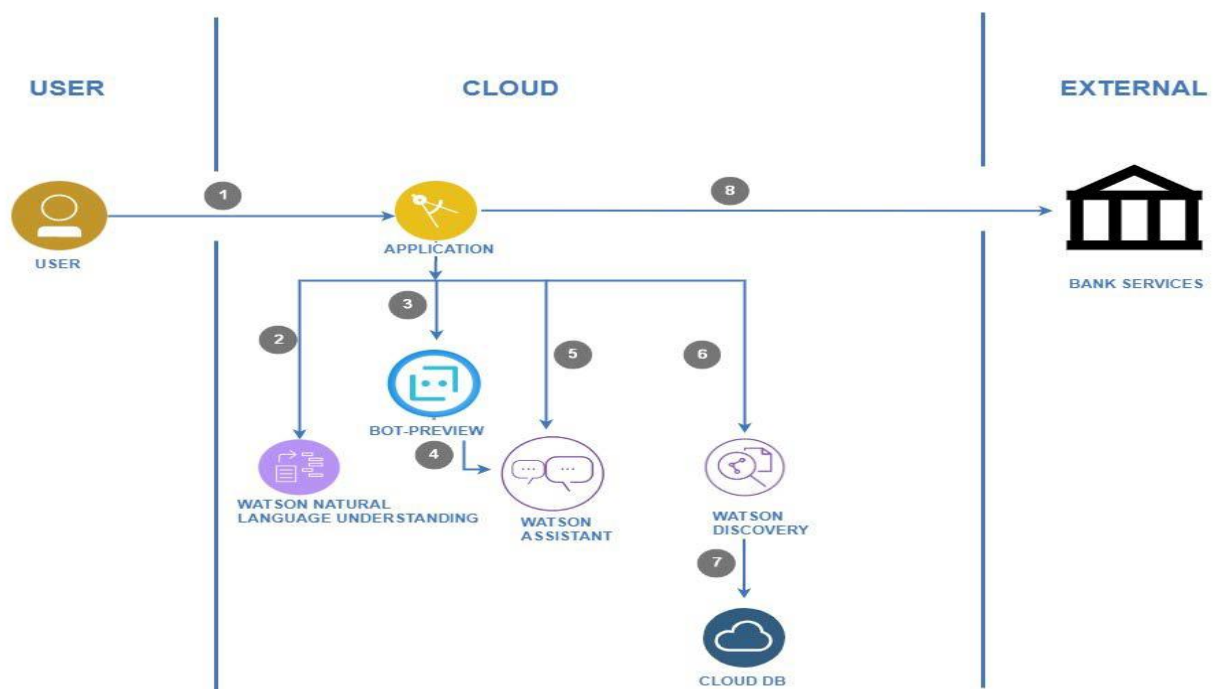


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Bot Preview	A simple page is presented to the user with a chat layout that has an input box field available to get user queries and preset options are presented for the user to select.	HTML, CSS, JavaScript
2.	Application Logic-1	An input bar is provided that enables the user to type queries.	Java / Python
3.	Application Logic-2	Regularly asked queries or options are presented to the user.	IBM Watson STT service
4.	Application Logic-3	Processes responses to custom queries and displays a relevant response.	IBM Watson Assistant
5.	Cloud Database	Queries and answers to queries are stored in the cloud and are accessed whenever a query is asked.	IBM Cloudant DB
6.	External API-1	It provides an interface between the application and the cloud to send the query from the application to the cloud.	Watson Assistant v2 API
7.	External API-2	A cloud based API that supports several cloud based applications and operations.	IBM Cloud API
8.	Deep Learning Model	It is trained with several queries and uses that knowledge to provide relevant responses to queries with a good enough accuracy.	Deep Learning
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Flask Application Cloud Server Configuration: IBM Cloud	Python Flask, IBM Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python Flask, CSS Frameworks
2.	Security Implementations	General access control and the built-in security features of IBM Cloud are present.	IBM Watson Assistant, IBM Cloudant DB
3.	Scalable Architecture	The architecture consists of three tiers, the client side, the web server and the cloud server. Each of these can be scaled as per requirements.	Client Side: Flask (Python) Web Server: IBM Watson Assistant Cloud Server: IBM Cloud
4.	Availability	The chatbot is available 24/7 on almost all devices that support an internet browser.	IBM Cloud, Flask (Python)
5.	Performance	Responds to several thousands of queries at the same time.	IBM Load Balancer, IBM Cloud

4. Project Planning phase

4.1 Milestone and Activity List

Milestone	Task	Starting Date	Ending Date	Project Completion Status	Team Members
Create IBM Service	Creation of Banking Chatbot or Assistant using IBM Watson Assistant	24 Oct 2022	25 Oct 2022	9%	Darwin Arun Doss I
	Understanding Customer's Banking Related Queries and skills	25 Oct 2022	29 Oct 2022	15%	Sudharshan D
Create Skills and Assistant for Chatbot	Training the Chatbot with Banking related dataset	31 Oct 2022	01 Nov 2022	24%	Vignesh Kumar V
	Building action and Adding responses to Account Creation	01 Nov 2022	02 Nov 2022	29%	Vimanthan M
	Building action and Adding responses to Banking related queries	02 Nov 2022	03 Nov 2022	34%	Darwin Arun Doss I
	Building action and Adding responses to Net Banking	03 Nov 2022	04 Nov 2022	39%	Sudharshan D
	Building action and Adding responses to Loan Queries	04 Nov 2022	05 Nov 2022	44%	Vignesh Kumar V
Testing Assistant & Integrate with Flask webpage	Testing the chatbot performance with the trained banking functionalities or conversations	07 Nov 2022	09 Nov 2022	60%	Vimanthan M
	Integration of Flask webpage with the chatbot assistant to provide a framework	09 Nov 2022	12 Nov 2022	83%	Darwin Arun Doss I , Sudharshan D, Vignesh Kumar V, Vimanthan M
Deployment Of Chatbot	Final Deployment of AI based chatbot for	14 Nov 2022	19 Nov 2022	100%	
	banking Industry or Running the Chatbot service in fully efficient and				Darwin Arun Doss I, Sudharshan D,

	effective condition				Vignesh Kumar V, Vimanthan M
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Project Planning (Product Backlog, Sprint Planning, Stories, Story points)

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

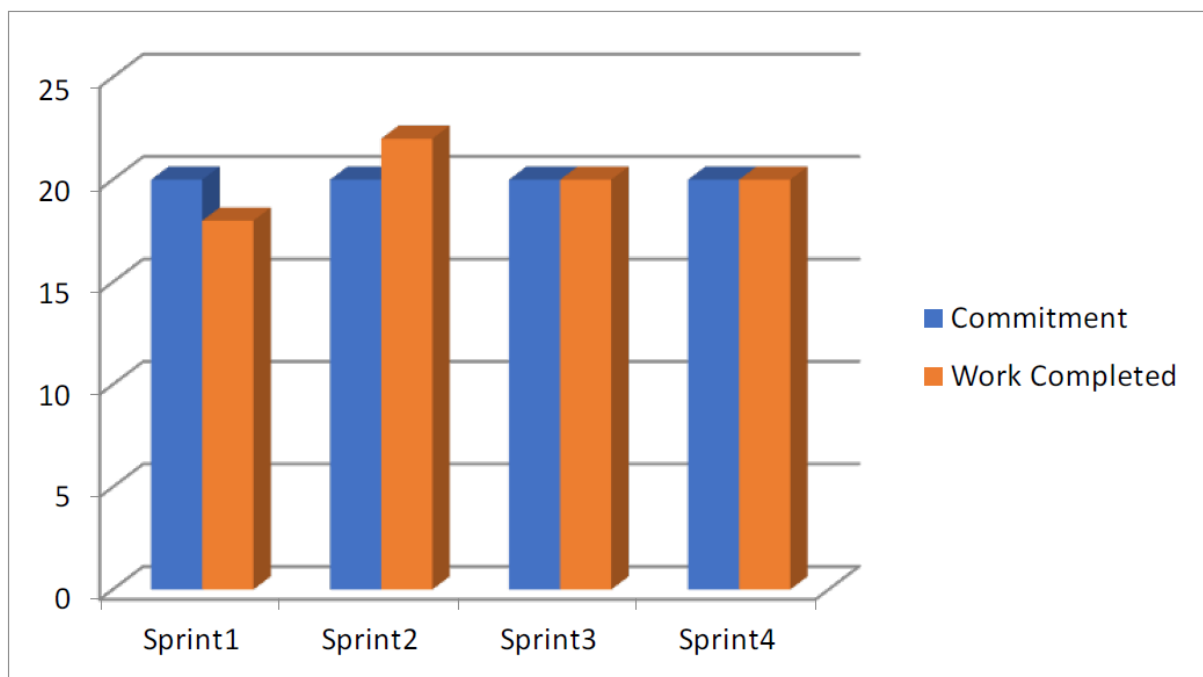
Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Savings Account Related Actions	USN-1	As a user, in the Savings Account option, I can select Types of Savings Account to get details regarding documents required for creating that savings account.	4	High	DARWIN ARUN DOSS I
Sprint-1		USN-2	As a user, I can check the Interest Rates of Savings Account	4	High	DARWIN ARUN DOSS I
Sprint-1		USN-3	As a user, I can check the Minimum Balance of Savings Account	3	Medium	DARWIN ARUN DOSS I
Sprint-1	Current Account Related Actions	USN-4	As a user, I can choose the Type of Company to know the information on documents to be submitted for creating current account	5	High	SUDHARSHAN D
Sprint-1		USN-5	As a user, I want to get details on procedure to close my Current Account	4	High	SUDHARSHAN D
Sprint-2	Loan Account Related Actions	USN-6	As a user, I can choose the Type of Loans to know the information on choosing an essential loan scheme	3	High	VIGNESH KUMAR V
Sprint-2		USN-7	As a user, I can check the Loan Amounts that can be offered for corresponding Loan Accounts chosen	3	High	VIGNESH KUMAR V
Sprint-2		USN-8	As a user, I can check the Status of Loan for my Loan Accounts	1	Low	VIGNESH KUMAR V

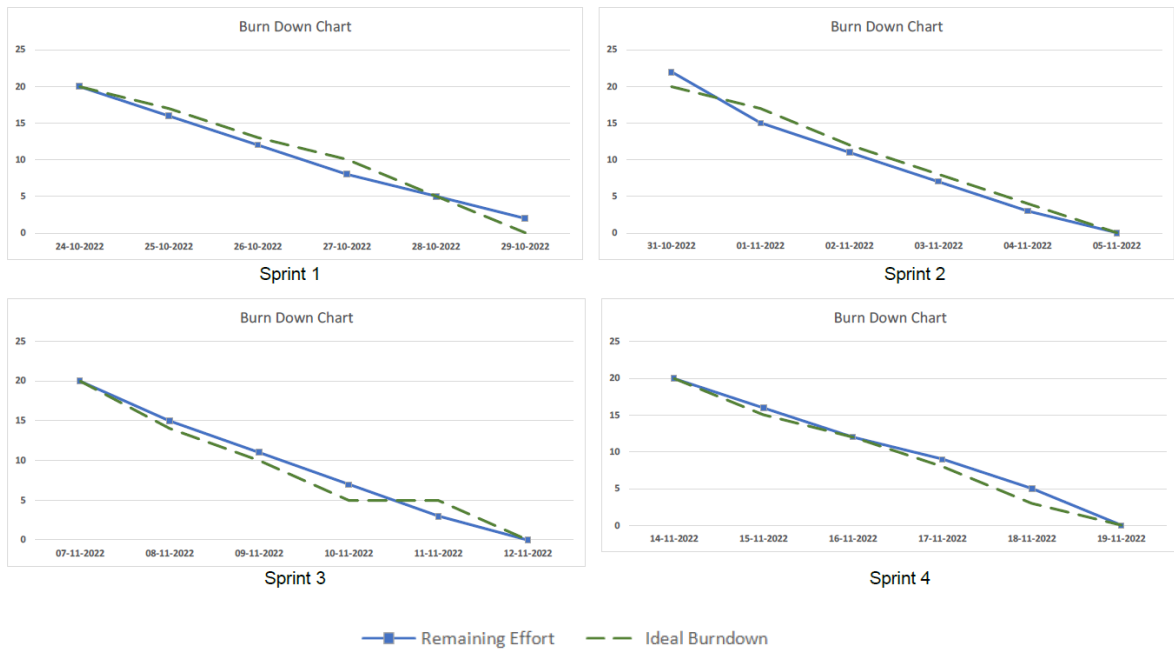
Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2	General Queries Related Actions	USN-9	As a user, I want to get the procedure details for Currency Conversion facility of my bank account	2	Medium	SUDHARSHAN D
Sprint-2		USN-10	As a user, I want to check my CIBIL score for my loan application and to ensure whether my loan application is approved by the bank.	1	Low	VIGNESH KUMAR V VIMANTHAN M

Sprint-2		USN-11	As a user, I want to get the procedure details for maintaining Storage Locker facility of my bank account	3	High	VIGNESH KUMAR V VIMANTHAN M
Sprint-2	Net Banking Related Actions	USN-12	As a user, I want to get the procedure details for changing the Net Banking password of my bank account	3	High	VIMANTHAN M
Sprint-2		USN-13	As a user, I can select types of fund transfers to get details regarding different services available in net banking	2	Medium	VIMANTHAN M
Sprint-2		USN-14	As a user, I want to get the procedure details for adding beneficiaries to my net banking account.	2	Medium	VIMANTHAN M
Sprint-3	Web Application	USN-15	As a user, I want to access the chatbot in a web browser that can be accessed from almost all devices.	20	High	SUDHARSHAN D VIGNESH KUMAR V
Sprint-4	User Interface and Web Pages	USN-16	As a user, I want to view pages of the banking website and have access to the chatbot easily.	20	High	DARWIN ARUN DOSS VIMANTHAN M

Velocity Chart:



Burndown Chart:



JIRA

Projects / AI based Discourse for Banking Industry

Backlog

Search backlog: PJ A RK A 👤 Epic ▼ 📊 Insights

▼ ABDFBI Sprint 1 24 Oct – 29 Oct (5 issues) 0 0 0 Start sprint ...

- ABDFBI-1 As a user, in the Savings Account option, I can select Types of Sa... SAVINGS ACCOUNT RELATED ACTI... IN PROGRESS ▼ A
- ABDFBI-2 As a user, I can check the Interest Rates of Savings Account SAVINGS ACCOUNT RELATED ACTI... IN PROGRESS ▼ A
- ABDFBI-3 As a user, I can check the Minimum Balance of Savings Account SAVINGS ACCOUNT RELATED ACTI... TO DO ▼ A
- ABDFBI-4 As a user, I can choose the Type of Company to know the inform... CURRENT ACCOUNT RELATED ACT... IN PROGRESS ▼ PJ
- ABDFBI-5 As a user, I want to get details on procedure to close my Current Acco... CURRENT ACCOUNT RELATED ACT... TO DO ▼ PJ

+ Create issue

💡 Quickstart ✕

	22	23	OCT							NOV							NOV							NOV						
Sprints			ABDFBI Sprint 1							ABDFBI Sprint 2							ABDFBI Sprint 3							ABDFBI Sprint 4						
> ABDFBI-26 Savings Account Related Actions																														
> ABDFBI-27 Current Account Related Actions																														
> ABDFBI-28 Loan Account Related Actions																														
> ABDFBI-29 General Queries Related Actions																														
> ABDFBI-30 Net Banking Related Actions																														
> ABDFBI-31 Web Application																														
> ABDFBI-32 User Interface and Web Pages																														

5.Project Development Phase:

5.1. Sprint 1:

Step 1: Create IBM Watson and activate the skills in it.

IBM Cloud

Search resources and products...

Catalog Manage Avinash S's Account

Resource list /

Watson Assistant-yv Active Add tags

Details Actions...

Manage

Service credentials

Plan

Connections

Start by launching the tool

Launch Watson Assistant

Getting started tutorial

API reference

Plan

Lite

Upgrade

Credentials

Download

Show credentials

API key:

URL:

View all credentials in the **Service credentials** tab.

IBM Watson Assistant Lite Upgrade Bot of Banking Learning center

Home

Welcome, you're in the new Watson Assistant!

We have some exciting changes in store for you

Take a tour

Faster build

We've simplified everything about the build process making it up to 6 times faster to launch your assistant.

Get started

Easy to use

Now anyone can build a fully-functioning assistant without the usual heavy lift from a development team.

View documentation

New features

The new Watson Assistant is loaded with features that empower you to meet the complexity of customer needs.

See what's new

Hide details

Bot of Banking | English (US)

No description

5.2 Sprint 2:

Step 1: Create action for Greetings.

The screenshot shows the IBM Watson Assistant interface for creating a new action named "Greeting". The top navigation bar includes "IBM Watson Assistant Lite", "Upgrade", and "BankBot". The left sidebar shows the "Greeting" action selected. The main area is divided into two panels. The left panel, titled "Conversation steps", shows a single step with the text "Hi, Good to see you." and a "Go to action: Index" button. The right panel, titled "Customer starts with:", provides instructions on how to enter phrases that trigger the action. It includes a text input field "Enter a phrase" and a list of four phrases: "Greeting", "Hello", "Hi", and "Hey". A "Total: 4" indicator is shown next to the list. A "New step +" button is located at the bottom right of the left panel.

Step 2: Create action for Index

The screenshot shows the IBM Watson Assistant interface for creating a new action named "Index". The top navigation bar includes "IBM Watson Assistant Lite", "Upgrade", and "BankBot". The left sidebar shows the "Index" action selected. The main area is divided into two panels. The left panel, titled "Conversation steps", shows a single step with the text "How can I help you..?" and a "Continue to next step" button. Below this, there are two additional steps, each with a "Go to action: Current" button. The right panel, titled "Assistant says", shows a text input field with the text "How can I help you..?". Below this, there is a "JSON added" section with the text "{custom response type}". There are buttons for "Edit response" and "Edit validation". At the bottom, there is a section titled "And then" with a "Continue to next step" button. A "New step +" button is located at the bottom right of the left panel.

Step 3: Create action for Savings Account.

IBM Watson Assistant LiteUpgradeBankBot

Savings

Customer starts with:
Savings

Conversation steps

1

What type of Saving account you need to create..?

Continue to next step

1

is

Zero Balance Savings Account

Great, take the following documents and reach the nearest branch.

2

Free text

Go to action: End

1

is

Kids Savings Account

Great, take the following documents and reach the nearest branch.

3

Free text

Go to action: End

New step

Step 1 is takenwithout conditions

f₃

Assistant says

What type of Saving account you need to create..?

JSON added(custom response type)

Edit responseEdit validation

And then

Continue to next step

Step 4: Create action for Current Account.

IBM Watson Assistant LiteUpgradeBankBot

Current

Customer starts with:
Current

Conversation steps

1

What's your company type..?

PartnershipProprietorship

Continue to next step

1

is

Partnership

Please take the following documents and reach the nearest bank.

2

Free text

Go to action: End

1

is

Proprietorship

Please take the following documents and reach the nearest bank.

3

Free text

Go to action: End

New step

Step 1 is takenwithout conditions

f₃

Assistant says

What's your company type..?

ProprietorshipPartnership

Edit responseEdit validation

And then

Continue to next step

Preview

Step 5 : Create action for End.

The screenshot shows the IBM Watson Assistant console interface. At the top, there's a header with 'IBM Watson Assistant Lite', 'Upgrade', and 'BankBot'. Below the header, the 'End' tab is selected. The left sidebar shows 'Conversation steps' with three steps. Step 1 is highlighted and contains the text 'Do you have any other queries to ask..?' with 'Yes' and 'No' buttons. Below it, there's a 'Continue to next step' button. Step 2 says 'Thank you. Have a nice day.' and Step 3 says 'This step has no content'. The main area shows 'Step 1 is taken' with 'without conditions'. Below this, 'Assistant says' shows the same text as Step 1. At the bottom, 'And then' shows 'Continue to next step'. A 'Preview' button is visible on the right.

Output Screenshots:

This screenshot shows the chat interface with a pink header labeled 'Preview'. The chat history includes: 'Greet customer [default]' with the message 'Welcome, how can I assist you?'; 'Greeting recognized' with the message 'Hi, Good to see you.'; and 'go to Index' with the message 'How can I help you..?'. A dropdown menu is shown with the text 'Select an option'. The input field at the bottom says 'Type something...'. A 'Hi' bubble is visible on the right.

This screenshot shows the chat interface with a pink header labeled 'Preview'. The chat history includes: 'Passport size Photo'; 'go to End' with the message 'Do you have any other queries to ask..?'; 'Yes' and 'No' buttons; 'Thank you. Have a nice day.'; and 'Greeting ended'. A 'Thanks' bubble is visible on the right. The input field at the bottom says 'Type something...'. A 'No' bubble is visible on the right.

This screenshot shows the chat interface with a pink header labeled 'Preview'. The chat history includes: 'What type of Saving account you need to create..?'; 'Regular Savings Account' (selected); 'Kids Savings Account'; 'Zero Balance Savings Account'; 'Great, take the following documents and reach the nearest branch.'; and a list of documents: 'Aadhar Card', 'Pan Card', and 'Passport size Photo'. A 'Regular Savings Account' bubble is visible on the right. The input field at the bottom says 'Type something...'. A 'Use the up arrow for prior messages' hint is at the bottom.

6.References:

[1]. The Impact of Chat-Bots on the Banking Experience published at April 2021.

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