

PROJECT REPORT

AI BASED DISCOURSE FOR BANKING INDUSTRY

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1. INTRODUCTION

The ongoing era of digitalisation, decentralisation and disruption is shaping industries and consumption on a broad scale (Desai, 2014). Digital technologies are connecting billions of consumers and allow the deployment of low cost connected devices in every business sector. The current generation is

adjusted to the digital environment and naturally expects services and products to meet the current digital technology standards. Further, investments into digital technologies and businesses have risen and are rewarded by the public markets (PWC Editorial, 2016). Artificial intelligence (AI) technologies are part of this development and the banking sector is hereby deemed to see a major impact. According to a report by Accenture, a global management consulting and professional services company, four out of five bankers assume that AI is going to revolutionise the way banking is executed. The report suggests that artificial intelligence will affect banking by enhancing the customer experience. Banking products and service may become increasingly personalised giving customers the impression that their banking institutes know their specific habits and needs (Accenture, 2016). But the introduction of AI technologies comes with potential challenges and risks. Banks are processing highly sensitive data. Thus, privacy and data security concerns are essential elements of the process. Additionally, customers might prefer the contact with persons regarding certain issues, leading to a rejection of AI based interfaces (Kelly, 2017). Hence, the introduction of such technologies into the active process should be executed with consideration of the possible risks.

1.1 Project Overview

The way private customers are interacting with banks is changing. Ashoka and Vinay (2017) are differentiating between millennial generation banking, which is also referred to as digital banking and traditional brick and mortar banking. They described that the banking industry as a whole is making a consistent effort to shift progressively towards digital channels. This shift is embracing a change from an account based view of a banking customer to a perspective, which sees customers as unique individuals with different needs. The challenge is to provide digital services that improve the customers experience by considering their personalised and specific needs. This is a key factor for the creation of banking services and products of the future. Consumers have already in multiple areas of their lives adapted a digital lifestyle substituting daily habits with various digital channels. Skinner (2014) states that digital social networks have large effects on the digitalisation process of various industries. As a result digital solutions are increasingly becoming an extension of traditional social interactions. During this conversion consumers are increasingly expecting that financial services are continuously digitally available in a customer friendly manner (Cuesta et al., 2015). Thus, one field which is supposed to leverage AI technologies are customer services. The development of solutions involving artificial intelligence approaches are seeing an increase in popularity within research and business (IBM - Watson, 2016). According to a report created by Oracle (2016) already eight of the ten investigated businesses implemented or are planning to implement artificial intelligence technologies into their customer service processes until the year 2020. The author has identified a knowledge gap regarding the usage of artificial intelligence technologies in banking and customer service. The problem is that specific research is absent in respect to the motivations and reasons for Swedish banking institutes to implement artificial intelligence solutions including the customer perspective. For this purpose, the Swedish banking sector with Swedbank as a case is studied.

1.2 Purpose

The purpose of this thesis is to analyse the motivations, challenges and opportunities for Swedish banking institutes to implement artificial intelligence based solutions into their customer service process.

2. LITERATURE SURVEY

2.1 Existing problem

☑ Customer service/engagement (Chatbot)

Chatbots deliver a very high ROI in cost savings, making them one of the most commonly used applications of AI across industries. Chatbots can effectively tackle most

commonly accessed tasks, such as balance inquiry, accessing mini statements, fund transfers, etc. This helps reduce the load from other channels such as contact centres, internet banking, etc.

● Robo Advice

Automated advice is one of the most controversial topics in the financial services space. A robo-advisor attempts to understand a customer's financial health by analyzing data shared by them, as well as their financial history. Based on this analysis and goals set by the client, the robo-advisor will be able to give appropriate investment recommendations in a particular product class, even as specific as a specific product or equity.

● General Purpose / Predictive Analytics

One of AI's most common use cases includes general-purpose semantic and natural language applications and broadly applied predictive analytics. AI can detect specific patterns and correlations in the data, which legacy technology could not previously detect. These patterns could indicate untapped sales opportunities, cross-sell opportunities, or even metrics around operational data, leading to a direct revenue impact.

● Cybersecurity

AI can significantly improve the effectiveness of cybersecurity systems by leveraging data from previous threats and learning the patterns and indicators that might seem unrelated to predict and prevent attacks. In addition to preventing external threats, AI can also monitor internal threats or breaches and suggest corrective actions, resulting in the prevention of data theft or abuse.

● Credit Scoring / Direct Lending

AI is instrumental in helping alternate lenders determine the creditworthiness of clients by analyzing data from a wide range of traditional and non-traditional data sources. This helps lenders develop innovative lending systems backed by a robust credit scoring model, even for those individuals or entities with limited credit history.

2.2 References

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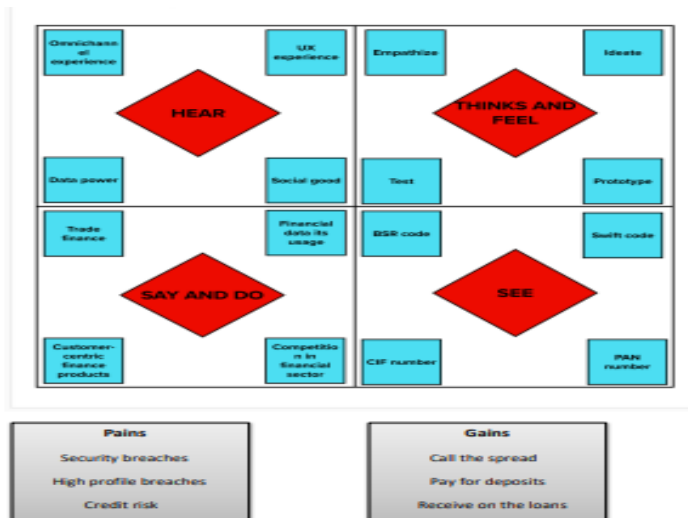
Bhargava, H. K., Sridhar, S., and Herrick, C. (1999). Beyond spreadsheets: tools for building decision support systems. Computer, 32(3), 31–39. <https://doi.org/10.1109/2.751326>

2.2 Problem Statement Definition

The way private customers are interacting with banks is changing. Ashoka and Vinay (2017) are differentiating between millennial generation banking, which is also referred to as digital banking and traditional brick and mortar banking. They described that the banking industry as a whole is making a consistent effort to shift progressively towards digital channels. This shift is embracing a change from an account based view of a banking customer to a perspective, which sees customers as unique individuals with different needs. The challenge is to provide digital services that improve the customers experience by considering their personalised and specific needs. This is a key factor for the creation of banking services and products of the future. Consumers have already in multiple areas of their lives adapted a digital lifestyle substituting daily habits with various digital channels. Skinner (2014) states that digital social networks have large effects on the digitalisation process of various industries. As a result digital solutions are increasingly becoming an extension of traditional social interactions. During this conversion consumers are increasingly expecting that financial services are continuously digitally available in a customer friendly manner (Cuesta et al., 2015). Thus, one field which is supposed to leverage AI technologies are customer services. The development of solutions involving artificial intelligence approaches are seeing an increase in popularity within research and business (IBM - Watson, 2016). According to a report created by Oracle (2016) already eight of the ten investigated businesses implemented or are planning to implement artificial intelligence technologies into their customer service processes until the year 2020. The author has identified a knowledge gap regarding the usage of artificial intelligence technologies in banking and customer service.

3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas



3.2 Ideation & Brainstroming

Brainstorm & Idea Prioritization Template:

Step-1: Team Gathering, Collaboration and Select the Problem Statement

Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

10 minutes to prepare
 1 hour to collaborate
 2-8 people recommended

Before you collaborate
A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes

- Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.
- Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.
- Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#)

1 Define your problem statement
What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

5 minutes

How might we [your problem statement]?

Key rules of brainstorming
To run an smooth and productive session

- Stay in topic.
- Encourage wild ideas.
- Defer judgment.
- Listen to others.
- Go for volume.
- If possible, be visual.

Step-2: Brainstorm, Idea Listing and Grouping

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Cyberattacks continue to increase across the banking industry.
2.	Idea / Solution description	Core Banking Solution is the networking of bank branches, which allows customers to manage their account.
3.	Novelty / Uniqueness	Bank performing more unique activities exhibit higher profitability and lower risk.
4.	Social Impact / Customer Satisfaction	Customers of the bank – Depositors, borrowers, lenders etc.
5.	Business Model (Revenue Model)	Banks will enable much and reliable services which will gain customer loyalty.
6.	Scalability of the Solution	In financial markets, scalability describes an institution's ability to handle increased market demands.

3.4 Problem Solution fit

Problem-solution fit template:

Define CS, fit into CC Focus on JS, fit into	1.CUSTOMER SEGMENT(S) <p>The customer is the creditor of banker when he has some deposit in the bank.</p>	6.CUSTOMER CONSTRAINTS <p>The major factors of overarching principles of right to fair treatment, right to transparency, right to suitability, right to privacy, right to grievances and compensation.</p>	5. AVAILABLE SOLUTIONS <p>Core banking solution(CBS) is the networking of bank branches, which allows customers to manage their accounts, and use various banking facilities from any part of the world.</p>	Explore AS, different Focus on JS, fit into
	2. JOBS-TO-BE-DONE / PROBLEMS <p>Artificial intelligence is the future of banking as it brings the power of advanced data analytics to combat fraudulent transactions and immense compliance.</p>	9. PROBLEM ROOT CAUSE <p>One of the biggest customer service challenges for banks is when their service executives are not able to resolve a problem, at least, not instantly.</p>	7. BEHAVIOUR <p>A customer behavior analysis researching customer habits, identifying the steps your customer takes in their banking journey, such as social trends impact their decision making.</p>	
	3. TRIGGERS <p>The banks are implementing AI for detecting frauds, enhancing customer experience, analyzing customer credit histories to predict risks associated with</p>	10. YOUR SOLUTION <p>Retail banking provides financial services to individual consumers rather than large institutions. Services offered include savings and checking accounts, personal loans, and certificates of deposit.</p>	8.CHANNELS of BEHAVIOUR 8.1 ONLINE <p>Online consumer behavior is the process of how consumers make decisions to purchase products in e-commerce.</p> 8.2 OFFLINE <p>An offline debit card does not require a PIN for use, only a signature, and can be compared to writing a check.</p>	
	<p>allotting loans, and many more.</p> 4. EMOTIONS: BEFORE / AFTER <p>The relationships customers developed with bank employees, the quality of in-person customer service, and the deep-seated trust in depository institutions have all contributed to the popularity of neighborhood banks.</p>			

4. REQUIREMENT ANALYSIS

4.1 Functions requirement

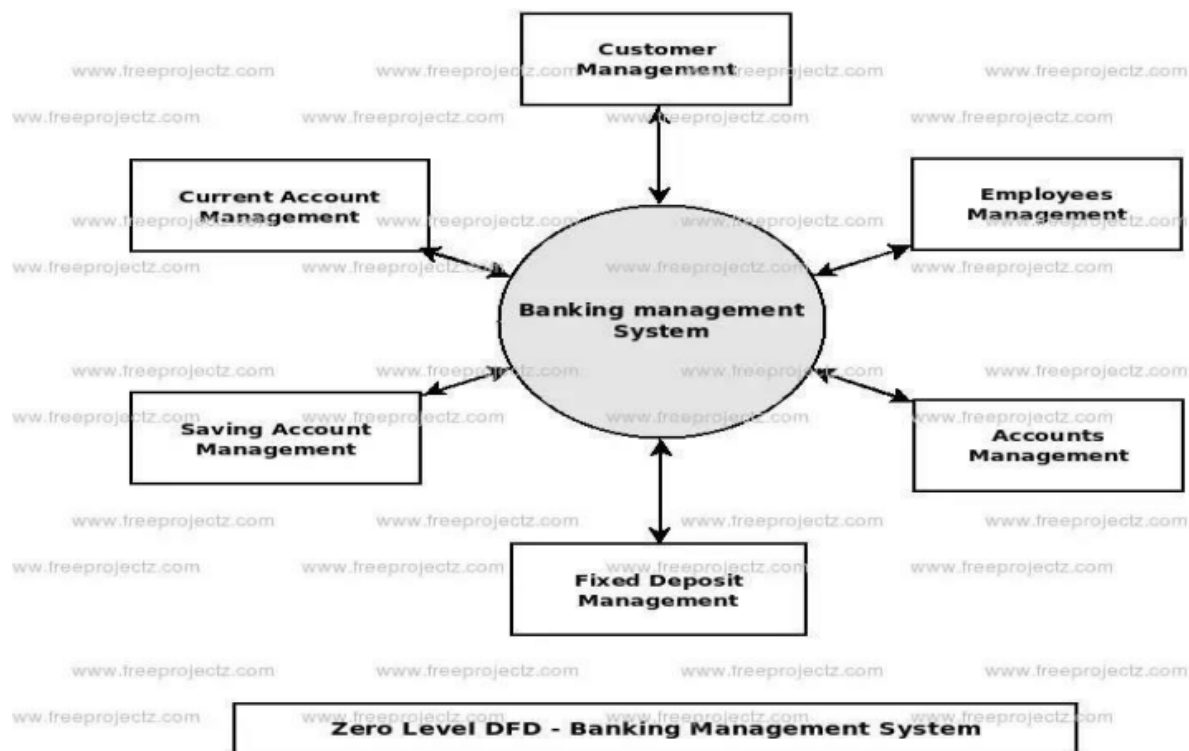
FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Sign in with login and password	<ul style="list-style-type: none"> • Sign in with login the customer • Sign in with login teller • Sign in with login the admin
FR-2	Update personal details	<ul style="list-style-type: none"> • Proof of possession of Aadhaar Number • Proof of possession of Voter's Identity Card • Register containing details of Name and Address
FR-3	View personal history of transactions	<ul style="list-style-type: none"> • Transactions between the client and the Banking company, Financial Institution • When have hosts associated with business for(EX: rent for office space)
FR-4	Transfer Money	<ul style="list-style-type: none"> • Recipient full name and phone number • Sender full name and phone number • Recipient address • Recipient bank name and information • Recipient checking account information
FR-5	Submit Cash	Additionally, there is provision for hefty penalties for paying or receiving cash in excess of the permitted amount.

4.2 Non - Functional requirement

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	AI helps banks predict future outcomes and trends and banks to identify fraud,detect anti-money laundering pattern.
NFR-2	Security	Hybrid-which combine aspects of periodic payments and equity.
NFR-3	Reliability	System reliability is defined as the probability of demand satisfaction and quality of service.
NFR-4	Performance	The cost-to-income ratios shows the ability of the institution to generate profits from a given revenue stream.
NFR-5	Availability	The need for high availability in banking systems has become an even greater priority in an environment.
NFR-6	Scalability	In financial markets,scalability describes an institution's ability to handle increased market demands.

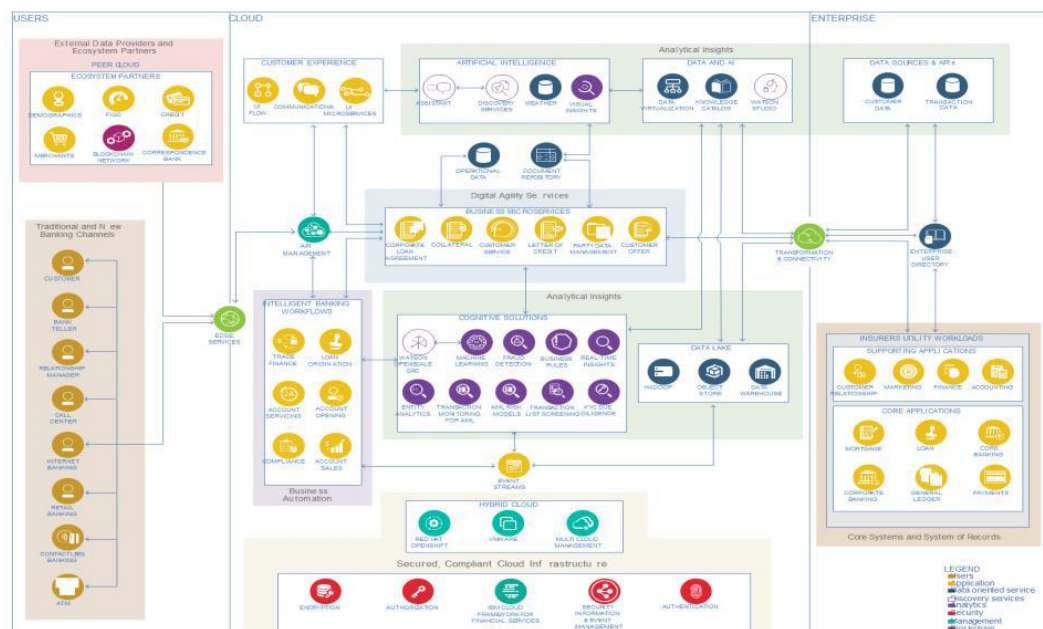
5.PROJECT DESIGN

5.1 Data Flow Diagrams



5.2 Solution & Technical Architecture

Technical Architecture : The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



5.3 User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a Customer I want to Login to my account using card and PIN code So that I can perform the transactions	System must validate the card and pin code In case Customer enters wrong Pin code three times then the system locks the card	High	Sprint-1
		USN-2	I want to to check the balance of my bank account So that I can perform transactions.	Customer needs to be logged in before checking balance.	High	Sprint-1
		USN-3	I want to to deposit cash in my bank account through ATM So that I may save my time and perform transactions later.	System should verify the amount of cash deposited by checking with the user.	Low	Sprint-2
		USN-4	I want to withdraw cash from my bank account through ATM So that I may save my time.	If amount entered is less than the account balance cash is dispensed and the new balance is displayed.	Medium	Sprint-1
		USN-5	I want to transfer money from my account to another bank account through ATM So that I may save my time.	System should check the receivers account number and validate it prior to performing the transactions.	High	Sprint-1

6. PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation

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	Sign in with login and password	USN-1	As a Customer I want to Login to my account using card and PIN code So that I can perform the transactions	4	High	Priya .M, Pavithra. K
Sprint-1	Update personal details	USN-2	I want to to check the balance of my bank account So that I can perform transactions.	2	High	Sandhiya. S, Ranjithkumar. A
Sprint-2	View personal history of transactions	USN-3	I want to to deposit cash in my bank account through ATM So that I may save my time and perform transactions later.	4	High	Pavithra. K
Sprint-3	Withdraw	USN-4	I want to withdraw cash from my bank account through ATM So that I may save my time.	3	Medium	Sandhiya. S

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4	Transfer money	USN-5	I want to transfer money from my account to another bank account through ATM So that I may save my time.	3	High	Ranjithkumar. A
Sprint-4	Submit Cash	USN-6	Additionally , there is provision for hefty penalties for paying or receiving cash in excess of the permitted amount.	2	High	Priya .M, Pavithra. K

7. CODING & SOLUTIONING

7.1 Feature 1

❑ Prediction of future outcomes and trends: With its power to predict future scenarios by analyzing past behaviors, AI helps banks predict future outcomes and trends. This helps banks to identify fraud, detect anti-money laundering pattern and make customer recommendations.

❑ Artificial Intelligence enables banks to manage record-level high-speed data to receive valuable insights. Moreover, features such as digital payments, AI bots, and biometric fraud detection systems further lead to high-quality services for a broader customer base.

Build Python Flask Code

APP.PY

```
from flask import Flask,render_template

app=Flask(__name__)

@app.route('/')

def bank():

    return render_template('Home.html')

@app.route('/about')

def about():

    return render_template('About.html')

@app route('/contact')

def contact()

    return render_template('Contact.html')

if __name__=='__main__':

    app.run(debug=True)
```

HOME HTML

```

<!DOCTYPE html>
<html style="font-size: 16px;" lang="en"><head>
<body>

<!--Chat Integration:--!>
<script>
window.watsonAssistantChatOptions = {
  integrationID: "ffa94b22-82fd-424d-baf0-05322655ecf4", // The ID of this integration.
  region: "us-south", // The region your integration is hosted in.
  serviceInstanceID: "e5ada103-ff26-4155-9a22-6cd24e8a71e0", // The ID of your service
instance.
  onLoad: function(instance) { instance.render(); }
};
setTimeout(function(){
  const t=document.createElement('script');
  t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest')/WatsonAssistantChatEntry.js";
  document.head.appendChild(t);
});
</script>
<footer class="u-align-center u-clearfix u-footer u-grey-80 u-footer" id="sec-bfdd"><div
class="u-clearfix u-sheet u-sheet-1">
  <p class="u-small-text u-text u-text-variant u-text-1">Banking ChatBot-2022</p>
</div></footer>
</body></html>

```

7.2 Feature 2

❑ Artificial Intelligence comprises a broad set of technologies, including, but are not limited to, Machine Learning, Natural Language Processing, Expert Systems, Vision, Speech, Planning, Robotics, etc.

❑ The uses of AI in banking industry are incredible. The banks are implementing AI for detecting frauds, enhancing customer experience, tracking .

IBM CHATBOT

Our chatbot is able to guide a customer to create a bank account.

IBM Watson Assistant

Life

Upgrade

Banking bot

Learning center

Web chat

Close

Save and exit

Customize your chat UI

Update the style to match your brand and your website. A developer can also add more advanced styling changes with code. [Learn more](#)

Assistant's name as known by customers

Watson Assistant

Primary color

#FFFFFF

Secondary color

#3D3D3D

Chat header

Accent color

#5302e8

Significant and interactive objects

Add an avatar image

Restart conversation

Hi! I'm a virtual assistant.
How can I help you today?

Savings

IBM Watson Assistant

Life

Upgrade

Banking bot

Learning center

Untitled action

Customer starts with:
Example: I want to pay my credit card bill.

Conversation steps

1
This step has no content
Continue to next step

New step

New action

What does your customer say to start this interaction?

Saving

Cancel

Save

Example: I want to pay my credit card bill.

IBM Watson Assistant

Life

Upgrade

Banking bot

Learning center

Untitled action

Customer starts with:
Example: I want to pay my credit card bill.

Conversation steps

1
This step has no content
Continue to next step

New step

New action

What does your customer say to start this interaction?

Current

Cancel

Save

Example: I want to pay my credit card bill.

IBM Watson Assistant Lite Upgrade

Banking bot

Learning center

Loan account action

Customer starts with:
Loan account action

Conversation steps

1

what the type of loan are you looking at?

Gold loan Home loan

Continue to next step

2

To be eligible for a loan please contact our bank service providers with all...

Gold loan

Continue to next step

New step +

Customer starts with:

Enter phrases that a customer types or says to start the conversation about a specific topic. These phrases determine the task, problem, or question your customer has.

The more phrases you enter, the better your assistant can recognize what the customer wants.

Enter phrases your customer might use Total: 1 to start this action

Enter a phrase

Loan account action

Query

Customer starts with:
Query

Conversation steps

1

Select the general queries listed below.

Find a nearest... CIBIL

Continue to next step

2

Kindly reach out to customer care executive.

Find a nearest...

Continue to next step

New step +

Customer starts with:

Enter phrases that a customer types or says to start the conversation about a specific topic. These phrases determine the task, problem, or question your customer has.

The more phrases you enter, the better your assistant can recognize what the customer wants.

Enter phrases your customer might use Total: 1 to start this action

Enter a phrase

Query

IBM Watson Assistant Lite Upgrade

Banking bot

Learning center

Net banking

Customer starts with:
Net banking

Conversation steps

1

What queries do you have regarding netbanking?

Facing errors... What is net b...

Continue to next step

2

Step 1 The facility offered by the bank allows customers to use bankin...

What is net b...

Continue to next step

New step +

Customer starts with:

Enter phrases that a customer types or says to start the conversation about a specific topic. These phrases determine the task, problem, or question your customer has.

The more phrases you enter, the better your assistant can recognize what the customer wants.

Enter phrases your customer might use Total: 1 to start this action

Enter a phrase

Net banking




8. TESTING

8.1 Test Cases

Test Scenarios	
1	Verify user is able to see the chatbot icon when website is launched
2	Verify the UI elements in chatbot icon popup
3	Verify user is able to see the greeting from chatbot "Hi! I'm a Banking Bot. How can I help you today? Banking Enquiry Loan"
4	Verify user is able to type query in text field.
5	Verify user is able to get the response from chatbot
6	Verify user whether get the response if the user enter the wrong query also
Search	
1	ChatBot icon should display.
2	After 30 seconds Information about chatbot popup displayed
3	User should see the greeting message from chatbot
4	User able to type the query in text field.
5	Users get the response from chatbot.
6	Kindly reach out to our customer care executive. Contact Us @9999xxx999

9. RESULTS

9.1 Performance Metrics

S.No	Parameter	Values	Screenshot
1.	Model Summary	-	
2.	Accuracy	Training Accuracy - 72.2 Validation Accuracy - 0.9052	 

10. ADVANTAGES & DISADVANTAGES

Advantages

1. **Round-the-clock support:** Chatbots provide 24/7 client support, so existing and potential customers can try and solve their banking problems after work hours and on weekends. This ultimately also leads to better customer experience.

2. Enhanced productivity of bank personnel: Not all clients' problems require the help of a staff member. Artificial intelligence may successfully deal with minor issues leaving only the most urgent and complicated cases for the human approach.

3. More convenient mode of communication: Chatbots may combine various functionalities that would make them convenient for customers of different age groups.

Disadvantages

1. Internet Issues: Chatbots will not work without the internet. If there is a network problem, chatbots may stop working and will not respond to client queries.

2. Requirement of technical knowledge: Users who make use of chatbots must know how to use chatbots. Otherwise, it is difficult to do interaction with chatbot.

3. Providing unexpected answers: Chatbots in some cases may get confused due to prolonged user inputs and may provide irrelevant answers.

4. Inability to interpret multiple queries: Chatbots can't understand multiple questions at a time if a user continuously posts queries to it. So it is necessary for a user to post queries one-by-one.

11. CONCLUSION

Chatbots developed using AI are able to answer any frequently asked 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. 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. AI Chatbots provide 24/7 service to clear all customer queries and guide them through all the banking processes. 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. 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 centers as well as providing them with relevant suggestions.

12. FUTURE SCOPE

Chatbots help people obtain the information they need and solve their problems. The technology sector has seen a massive increase in AI development, which has led to the creation of chatbots that can help users easily find the information they need online. AI Chatbot effectively create a strong brand image. They will continue to evolve and play an important role in customer service for business.

1. Bots for Internal Business Communications

Chatbots can be used for various purposes, including addressing common problems, communicating with employees, and finishing HR-related tasks and transactional functions. Chatbots for websites are acting as a guide to new employees through company protocols,

recording answers for screen questions, and assisting with the onboarding process for new employees.

2. Content Marketing

Chatbots can communicate with the target market by speaking with them in complete sentences with a natural and easy-going conversational flow. Some markets use these bots to serve customer service and retail, among others. This can be incredibly useful for creating more accurate target marketing. Based on the information from dialogue with chatbots, marketers can use this information to help with personalizing brand content.

3. Social Media

Chatbots have better customer interaction rates on social media. Chatbot interactions increase consumer confidence in a brand or business. Customers are informed with daily or weekly announcements about deals, events, and promotions via social media. With time, it is used for voicing opinions, ordering products and services, offering reviews, and even getting in touch with businesses.

4. Use of AI in contact centers

AI chatbots without human involvement can handle simple requests such as changing a password, requesting a balance, scheduling an appointment, etc.

13. APPENDIX

Source Code

APP.PY

```
from flask import Flask,render_template

app=Flask(__name__)

@app.route('/')

def bank():

    return render_template('Home.html')

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@app.route('/contact')

def contact()

    return render_template('Contact.html')
```

```
if_name_=='_main_':
```

```
    app.run(debug=True)
```

Build HTML and CSS Code

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>BOT SITE BANKING</title>
  <link rel="stylesheet" href="styles.css">

  <link rel="stylesheet"
    href="https://unpkg.com/boxicons@latest/css/boxicons.min.css">

  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
  <link
    href="https://fonts.googleapis.com/css2?family=Poppins:wght@100;200;300;400;500;
    600;700;800;900&display=swap" rel="stylesheet">

</head>
<body>

<script>
  window.watsonAssistantChatOptions = {
    integrationID: "cd1c07d7-dde2-4c4e-9d51-0adb9c92730d", // The ID of this
integration.
    region: "us-south", // The region your integration is hosted in.
    serviceInstanceID: "081c7e04-dd58-46e7-805d-4c57c0c2fbcc", // The ID of your
service instance.
    onLoad: function(instance) { instance.render(); }
  };
  setTimeout(function(){
    const t=document.createElement('script');
    t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') +
"/WatsonAssistantChatEntry.js";
    document.head.appendChild(t);
  });
</script>

<header>
  <a href="#" class="logo">BANKING CHATBOT<span>??</span></a>
  <div class="bx bx-menu" id="menu-icon"></div>
```

```

<nav>
<ul class="navbar">
  <li><a href="#Home">HOME</a></li>
  <li><a href="#About">ABOUT</a></li>
  <li><a href="#Services">SERVICES</a></li>
  <li><a href="#Contact">CONTACT</a></li>

</ul>
</nav>

```

```

</header>

```

```

<!-------Home start----->
<section class="home" id="home">
  <div class="home-text">
    <h1><br>AI BASED <br>DISCOURSE FOR <br> BANKING INDUSTRY<br></h1>
    <h2>For Connecting Peoples and<br> Managing their Accounts</h2>
    <br>
    <a href="#" class="btn">GET STARTED</a>
  </div>

```

```

  <div class="home-img">
    

```

```

  </div>

```

```

  <!-------About start----->
  <section class="about" id="about">
    <div class="about-img">
      
    </div>
  </section>

```

```

    <div class="about-text">
      <br><br>
      <h2>About us</h2>
      <span> Customers Bank keeps neat and concise<br> with loans or instant
payments.</span>
      <p>'Full Service Commercial 'Bank' providing a complete range of products,
<br>services and technology driven digital offerings, catering to Retail, <br>MSME as
well as corporate clients.

```

For more information, please visit the Bank's website at
<http://www.Aibotsitebank.in/>.

```

        </p>
        <a href="#" class="btn">Show</a>
    </div>
    <!-------Services start----->
<section class="services" id="services">
    <div class="services-img">
        
    </div>
</section>

<div class="services-text">
    <br><br>
    <nav>

        <ul class="services-text">
            <a href="#PayBill" class="btn">PAY BILL</a>
            <a href="#Check Balance" class="btn">CHECK BALANCE</a>
            <a href="#Transfer Funds" class="btn">TRANSFER FUNDS</a>
            <a href="#Download Statement" class="btn">STATEMENTS</a>
        </ul>

    </nav>

</div>

<!-------Contact start----->
<section class="contact" id="contact">
    <div class="contact-img">
        
    </div>

</section><hr><hr>

<div class="contact-text"><h1 style="text-align:center;">TEAM ID:
PNT2022TMID42533</h1>
<ol><li style="text-align:center;"> PRIYA M</li>
    <li style="text-align:center;">PAVITHRA K</li>
    <li style="text-align:center;">SANDHIYA S</li>
    <li style="text-align:center;">RANJITH KUMAR R</li>

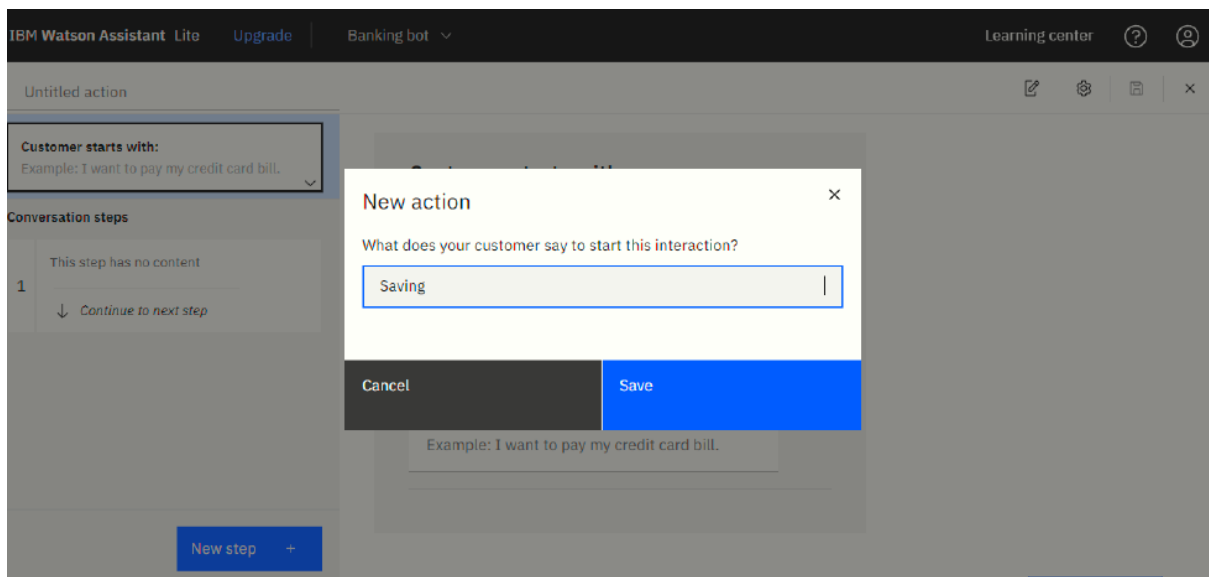
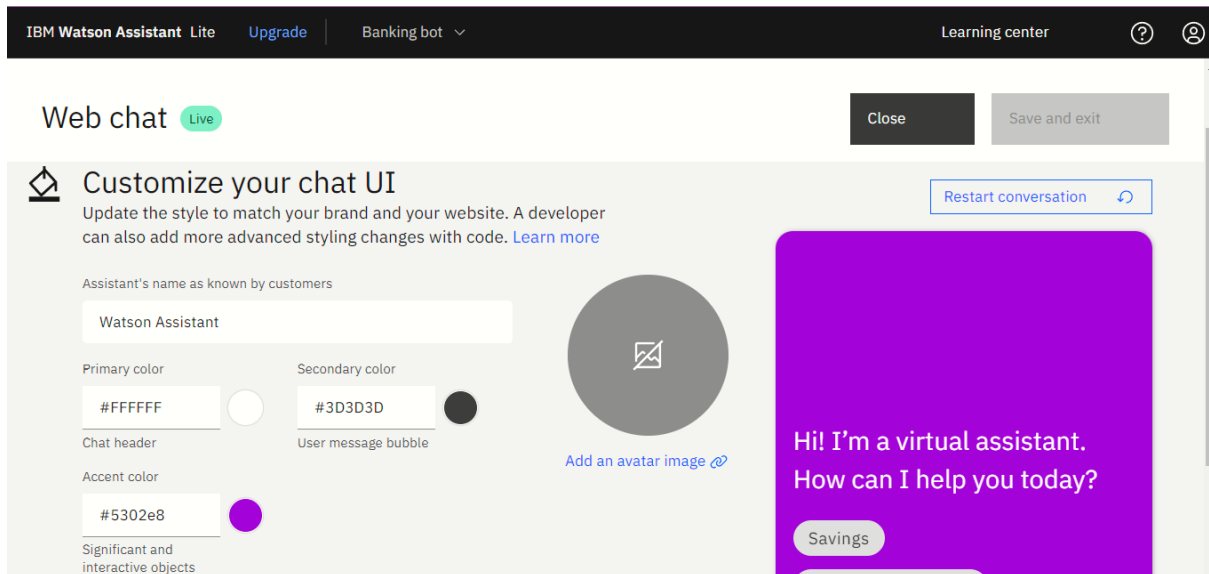
</ol>
</div>

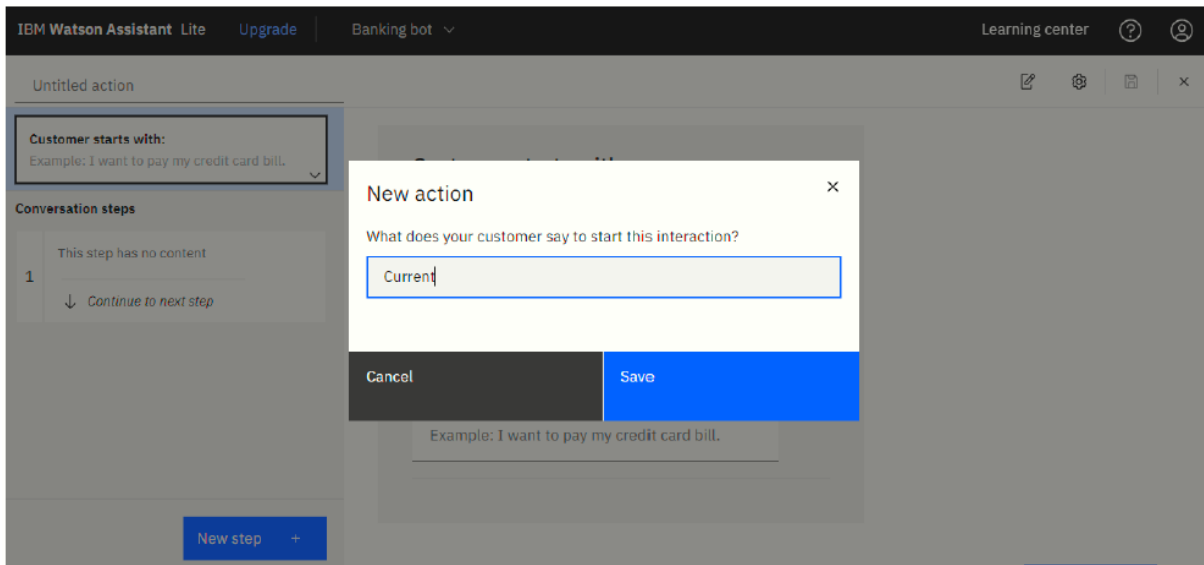
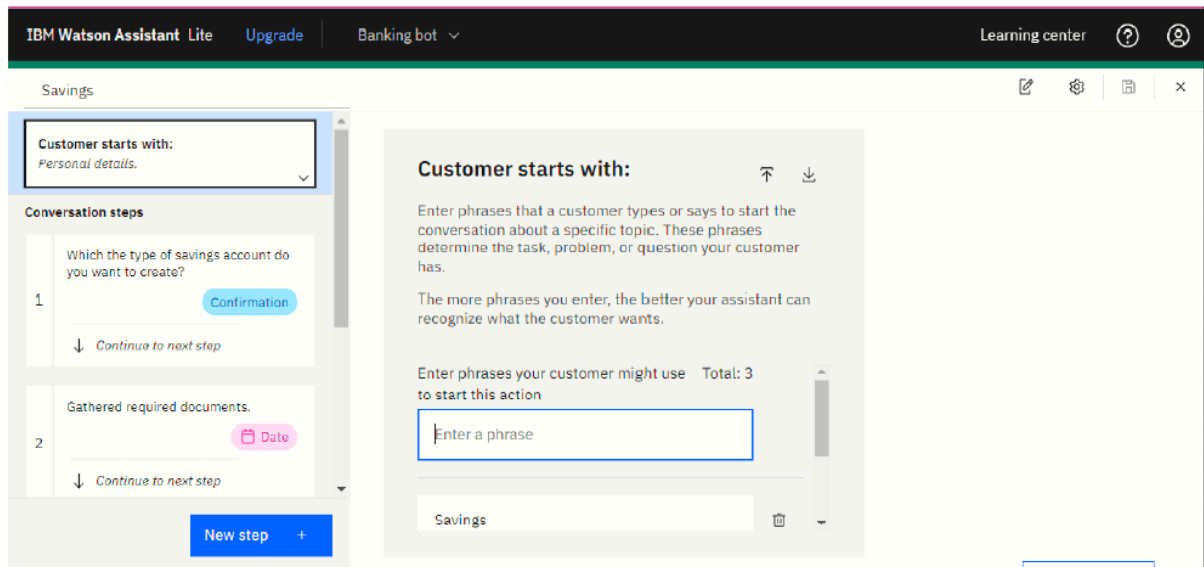
</section>

```

</body>
</html>

IBM CHATBOT





IBM Watson Assistant LiteUpgradeBanking botLearning center

Current

Customer starts with:
Current

Conversation steps

1

what is your currency type?

Confirmation

Continue to next step

2

please take the following documents and approach the choosen branch?

Currency

Continue to next step

New step +

Customer starts with:

Enter phrases that a customer types or says to start the conversation about a specific topic. These phrases determine the task, problem, or question your customer has.

The more phrases you enter, the better your assistant can recognize what the customer wants.

Enter phrases your customer might use Total: 1 to start this action

Enter a phrase

Current

Preview

IBM Watson Assistant LiteUpgradeBanking botLearning center

Loan account action

Customer starts with:
Loan account action

Conversation steps

1

what the type of loan are you looking at?

Gold loanHome loan

Continue to next step

2

To be eligible for a loan please contact our bank service providers with all...

Gold loan

Continue to next step

New step +

Customer starts with:

Enter phrases that a customer types or says to start the conversation about a specific topic. These phrases determine the task, problem, or question your customer has.

The more phrases you enter, the better your assistant can recognize what the customer wants.

Enter phrases your customer might use Total: 1 to start this action

Enter a phrase

Loan account action

Query

Customer starts with:
Query

Conversation steps

1

Select the general queries listed below.

Find a nearest...

CTBIL

Continue to next step

2

Kindly reach out to customer care executive.

Find a nearest...

Continue to next step

New step +

Customer starts with:

Enter phrases that a customer types or says to start the conversation about a specific topic. These phrases determine the task, problem, or question your customer has.

The more phrases you enter, the better your assistant can recognize what the customer wants.

Enter phrases your customer might use Total: 1 to start this action

Enter a phrase

Query

IBM Watson Assistant Lite Upgrade Banking bot Learning center

Net banking

Customer starts with:
Net banking

Conversation steps

1

What queries do you have regarding netbanking?

Facing errors...

What is net b...

Continue to next step

2

Step 1 The facility offered by the bank allows customers to use bankin...

What is net b...

New step +

Customer starts with:

Enter phrases that a customer types or says to start the conversation about a specific topic. These phrases determine the task, problem, or question your customer has.

The more phrases you enter, the better your assistant can recognize what the customer wants.

Enter phrases your customer might use Total: 1 to start this action

Enter a phrase

Net banking

New action +

Name	Last edited	Examples Count	Status
Net banking	14 hours ago	1	✓
Savings	16 hours ago	3	✓
Query	14 hours ago	1	✓
Loan account action	14 hours ago	1	✓
Current	15 hours ago	1	✓

Items per page: 50 Showing 1–5 of 5 actions 1 1 of 1 pages

GITHUB LINK:

<https://github.com/IBM-EPBL/IBM-Project-44858-1660727092>