



# **AI-BASED DISCOURSE FOR BANKING INDUSTRY**

## **A PROJECT REPORT**

*Submitted by*

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# PROJECT REPORT

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## INTRODUCTION

The digital transformations in various industries have mainly been driven by the development of artificial intelligence (AI). Over the past four years, there has been tremendous growth in AI investments worldwide. The 2016 report by Gartner revealed that the actual deployment of AI technology had been undertaken by a mere 9% of organizations, but the number increased to 25% three years later in 2019 with Enterprise Digital Research projects the growth rate to double in the subsequent five years. Also, it is now the number one strategic technology for organizations. Digital transformations now rely on AI riding on the developments in networking and greater data processing.

AI is considered a crucial business solution and basis for capabilities in all types of organizations. The economic growth of various nations is also driven by AI as it provides ample business opportunities. AI applications can improve organizational performance and create a competitive advantage. Banks that have adopted AI technology have demonstrated a boost in interest incomes, lower costs, and enhanced customer satisfaction. .Despite the benefits generated by its greater computational data power, AI has yet to be conventionally adopted. Many organizations are still at the infancy stage of AI adoption including those in Sri Lanka They are still trying to determine the business case for AI applications as well as the needed skills for evaluating, building, and deploying AI solutions.

Internet giants like Amazon, Google, YouTube, and Facebook are constantly issuing their AI libraries making them accessible to developers in general. Additionally, AI tools are now made available by many prominent software vendors including IBM Watson, Azure Machine Learning, and Infosys Nia for the use of organizations. With such developments, AI now permeates all industries including banking and finance.

## **1.1 PROJECT OVERVIEW**

Artificial intelligence (AI) has been a subject of interest in the research. The field for the past few years. It has now been brought closer to commercial use due to recent technological advances and speedier data accessibility. Its relevance to global business models is underlined by the significant investments in it made by Internet powerhouses including Google, YouTube, Amazon, and Facebook. In the banking sector where data is of substantial value, AI has been incorporated in pilot projects but its true applications have yet to see the light of day. In this study, the drivers and barriers to successful AI implementation in the banking sector are analyzed using panel data from 28 semi-structured interviews with AI experts in banking and finance. AI-oriented role models and process capabilities were revealed to be essential prior to having the trained algorithms reach the level whereby, the AI applications can run devoid of human involvement and moral trepidations.

The current banking sector is now feeling the pressure of the rise of financial technology firms (FinTechs) and increasing customer demands. Hence, this study intends to determine how banking service sectors adapt and adopt AI and how they cope with the challenges that come along with it. In answering that question, empirical data was gathered by conducting semi-structured interviews with a panel of banking AI experts from major software provider companies including IBM, Infosys, Microsoft, and Salesforce, supported by interviews with CxO level experts. The study is guided by the TOE framework. After analyzing the key challenges that come with AI implementation, each challenge was addressed using a corresponding guideline i.e. the second tier in this inquiry. The findings reveal the significance of AI in creating a competitive advantage for banks who in turn need to resolve the challenges of conservative organizational structures and poor service mindsets in order to reap the full benefits of AI implementation.

## 1.2 PURPOSE

- ❖ Chatbots are used to pay bills, track money transfers, and schedule or cancel payments. Chatbots can also be used to charge prepaid cards and pay off credit card bills.
- ❖ Within seconds, customers can ask chatbots to check their account balances. AI assistants may also assess account balances and alert consumers if their accounts are going to fall below a specific limit.
- ❖ Bots can assist users in better management of their money by summarizing their transactions and providing a recurring weekly or monthly report on expenditures.
- ❖ This is one of the most important applications for chatbots in banking because it protects account holders from suspicious and fraudulent activities while also safeguarding their hard-earned money.
- ❖ Chatbots increase operational efficiency by automating customer service. In banking, they can improve the omnichannel customer experience by reducing response times and allowing customers to get their queries resolved quickly.
- ❖ Chatbots can provide consumers with a variety of useful information, including spending trends, a year-end overview of recurrent expenditures, and charges for specific months or locations.
- ❖ Chatbots enable users to make quick, painless payments in a matter of seconds while maintaining the highest level of security and data protection. Conversational banking chatbots make the payment process faster, safer, and more secure.
- ❖ Chatbots enable banks to communicate with their clients on their preferred channels at any time of day.

## **LITERATURE SURVEY**

The banking industry has been profoundly influenced by technological evolution in recent decades and consumer adoption of banking technologies is a widely researched topic in the literature. Thus, a more in-depth look into the processes behind the adoption of banking chatbots can be gained through the review of the existing literature on the adoption of other technologies applied in the banking sector, such as i-banking and m-banking.

Several theories have been implemented in order to analyze the adoption of different IT systems. The most influential theoretical models applied in i-banking adoption studies, are the Diffusion of innovation theory (DIT), the Technology acceptance model (TAM), the Decomposed theory of planned behavior (DTPB), the Extended technology acceptance model (TAM2) and the Unified theory of user acceptance of technology (UTAUT), the latter becoming dominant in the literature in recent years. The existing studies of m-banking adoption and concluded that the most frequently used adoption models were TAM, followed by DIT and UTAUT, while several studies applied a combination of different technology acceptance models (e.g. TAM and DIT). Several of the above mentioned models are composed of intention to use or actual usage as the dependent variables. Consequently, the key dependent variables in the i -banking adoption literature are behavioral intention to use and actual usage of the technology, while in m-banking adoption, besides the two earlier mentioned dependents, attitude is also adopted in order to analyze technology acceptance testing.

Based on the literature review, it could be concluded that usefulness and ease of use are fundamental variables in studying technology acceptance in the banking sector. It should also be highlighted that compatibility was found as a key determinant for m-banking.

## 2.1 EXISTING PROBLEM

- ❖ A machine learning system requires humans to collect, select, and clean every single piece of training data, because using machine learning to understand humans takes a staggering amount of information.
- ❖ In a linguistic based conversational system, humans can ensure that questions with the same meaning receive the same answer. A machine learning system might well fail to correctly recognize similar questions phrased in different ways, even within the same conversation.
- ❖ Organizations need to support their customers in different languages — a problem that will only increase over time. Hence, chatbots need to be fluent in many languages, with the ability to learn more when needed.
- ❖ Most chatbot development technology requires a great deal of effort and often complete rebuilds for each new language and channel that needs to be supported, leading to multiple disparate, solutions all clumsily co-existing.
- ❖ Although generating large volumes of data provides better business opportunities, on the one hand, it simultaneously creates data storage and security issues on the other. The more data is generated and the more users have access, the higher the chances of data leakage into the hands of someone on the dark web.
- ❖ Artificial intelligence-based solutions change our lives and provide daily utility through high internet speeds. AI systems achieve these speeds under the condition that a company has suitable infrastructure and premium processing capabilities.
- ❖ Challenges with implementing AI in business first arise from the necessity of integrating AI into existing systems. It requires the support of AI solutions providers with extensive experience and expertise.

## 2.2 REFERENCES

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## 2.3 PROBLEM STATEMENT

Banking is an important industry since it deals with financial transactions that anyone may use, yet banks are frequently unable to satisfactorily respond to client questions about their goods or services, which lowers customer satisfaction. To give customers the best choice, an intelligent system must be put in place to guide them through all of the financial services the bank provides. The users are bank customers who need a service that is always on call to respond to all of their inquiries and guide them through the various banking processes. To ensure effective service delivery, a better and more intelligent manner of communication with clients must be created.

It is intended to serve as a comprehensive virtual assistant that enables users to provide useful advice and ask inquiries about banking without having to go to a bank or contact customer care centers.

### PROBLEM STATEMENT 1:




### PROBLEM STATEMENT 2:



# IDEATION & PROPOSED SOLUTION

## 3.1 EMPATHY MAP CANVAS


Template



### Empathy map canvas

Use this framework to empathize with a customer, user, or any person who is affected by a team's work. Document and discuss your observations and note your assumptions to gain more empathy for the people you serve.

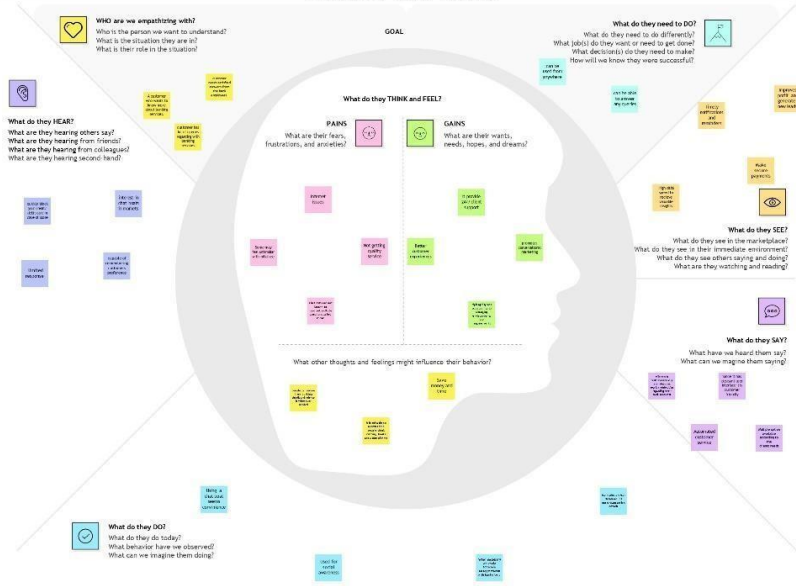
Originally created by Dave Gray et al.



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project title	AI BASED DISCOURSE FOR BANKING INDUSTRY
Mentor	SANTHOSH KUMAR S P
Team id	PNT2022TMD43737

### ideation phase empathy map canvas



**WHO are we empathizing with?**  
Who is the person we want to understand?  
What is the situation they are in?  
What is their role in the situation?

**What do they HEAR?**  
What are they hearing others say?  
What are they hearing from friends?  
What are they hearing from colleagues?  
What are they hearing second-hand?

**What do they DO?**  
What do they do today?  
What behavior have we observed?  
What can we imagine them doing?

**GOAL**


**What do they THINK and FEEL?**  
**PAINS**  
What are their fears, frustrations, and anxieties?  
**GAINS**  
What are their wants, needs, hopes, and dreams?

**What other thoughts and feelings might influence their behavior?**

**What do they NEED to DO?**  
What do they need to do differently?  
What jobs do they want or need to get done?  
What decisions do they need to make?  
How will we know they were successful?


**What do they SEE?**  
What do they see in the marketplace?  
What do they see in their immediate environment?  
What do they see others saying and doing?  
What are they watching and reading?

**What do they SAY?**  
What have we heard them say?  
What can we imagine them saying?



Need some inspiration?  
See a finished version of this canvas to inspire your work.

[Open example](#)



### 3.2 IDEATION & BRAINSTORMING

[illegible]

### 3.3 PROPOSED SOLUTION

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<p>Using Watson's assistance, we will construct a chatbot in this project. The following features should be available on this chat:</p> <ul style="list-style-type: none"> <li>• The bot should be able to direct users through the process of opening a bank account.</li> <li>• The bot should be able to respond to questions about loans.</li> <li>• The Bot ought to be able to respond to common banking questions.</li> <li>• The bot ought to be able to respond to questions about online banking.</li> </ul>
2.	Idea / Solution description	The suggested remedy entails developing a chatbot that mimics human interaction in order to help consumers with their banking needs and offer a more personalized experience. A conversation bot can now more easily be integrated into applications thanks to developments in artificial intelligence, machine learning, decision-making ability, and the availability of more domains and corpora.
3.	Novelty / Uniqueness	Users will be able to ask any banking-related queries they feel comfortable asking, like how to check account details, transactions, and balance, using natural language. The chatbot will detect and understand the user's question in light of the conversational environment and generate an appropriate response.
4.	Social Impact / Customer Satisfaction	Users will be able to ask any banking-related queries they feel comfortable asking, like how to check account details, transactions, and balance, using natural language. The chatbot will detect and understand the user's question in light of the conversational environment and generate an appropriate response.
5.	Business Model (Revenue Model)	To help consumers with their banking, a chatbot designed specifically for the domain will be used. To solve the problems with user happiness connected with services for internet

		banking. The chatbot will enable the customer to have direct, effective communication with their bank in order to manage their accounts and receive support as necessary, including scheduling appointments and responding to questions.
6.	Scalability of the Solution	The chatbot will offer prompt responses to eliminate the requirement for the user to contact or visit their local bank office and stand in line in order to speak with an advisor for assistance. To increase the application's security to strengthen security and guarantee that only users who have registered may access their accounts, reducing the possibility of fraud, Google's 2 Factor Authentication will be incorporated.

### 3.4 PROPOSED SOLUTION FIT

IDENTIFY STRONG T&E	<b>1. CUSTOMER SEGMENT(S)</b> Define CS fit into CC They can assist bank customers to get the status of account balances, transferring funds, applying for personal loans and credit cards, paying bills, and checking their credit scores.	<b>6. CUSTOMER CONSTRAINTS</b> • Good network • Any device to connect (mobile/laptop)	<b>5. AVAILABLE SOLUTIONS</b> Explore AS different use Machine Learning, predictive analytics, and voice recognition tools are all increasing the value of digital banking services. <b>AI Chatbots, facial recognition banking apps, and fraud detection systems and applications.</b>	IDENTIFY STRONG T&E
	<b>2. JOBS TO BE DONE / PROBLEM</b> Focus on JDP up into BE, problem into CC Lead generation and qualification Chatbots can engage with the visitors on the bank's digital platforms to generate leads and assess those leads with relevant questions. Customer service 24/7 availability and the tireless and consistent nature of chatbots for customer support is an important advantage of chatbots in banking.	<b>9. PROBLEM ROOT CAUSE</b> Chatbots are as smart as they are programmed to be handling multiple languages and dialects can be a troublesome task for chatbots. Gathering data, cleaning it, and training the chatbot with it is a lengthy process. AI is a developing branch and a chatbot with human-level cognizance.	<b>7. BEHAVIOUR</b> Banking chatbots help customers complete banking transactions with ease using voice or text. Chatbots are useful to banks because they can reduce operational costs, as well as improve customer satisfaction by streamlining interactions.	
	<b>3. TRIGGERS</b> TR • Chatbots are faster • They tirelessly work round the clock and are available 24*7*365 • Chatbots result in huge cost savings • They provide a personalized experience	<b>10. YOUR SOLUTION</b> SJ Chatbots can help users find information faster, but they are not a replacement for answers to frequently asked questions on your organization's website. Chatbots require good content that can be easily parsed, and that content must be created and maintained by humans.	<b>8. CHANNELS of BEHAVIOUR</b> CH <b>8.1 ONLINE</b> AI can help banks improve the security of online finance, track the loopholes in their systems, and minimize risks.	
	<b>4. EMOTIONS: BEFORE / AFTER</b> EM <u>Emotions before:</u> Helpless, slow process, improper guidance, time-consuming <u>Emotions after:</u> Faster, proper guidance, customer friendly, solve complex queries	Sometimes the chatbot may not know the answer. When that happens, a chatbot can transfer users to an agent or direct them to a self-service knowledge center. Being resourceful and continuing to improve the quality of your content can help create a successful chatbot solution and improve the overall customer experience.	<b>8.2 OFFLINE</b> Complex machine learning to fend off money launderers or sift through mountains of data for fraud-related anomalies, you've probably at least interacted with its customer service chatbot, which runs on AI	

## REQUIREMENT ANALYSIS

### 4.1 FUNCTIONAL REQUIREMENT

**Functional Requirements:** Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	<ul style="list-style-type: none"><li>• Registration through Form</li><li>• Registration through Gmail</li><li>• Registration through LinkedIn</li></ul>
FR-2	User Confirmation	<ul style="list-style-type: none"><li>• Confirmation via Email</li><li>• Confirmation via OTP</li></ul>
FR-3	Complex dialogues	<ul style="list-style-type: none"><li>• Excellent chatbot software has NLP function (Natural Language Processing) to evaluate the context of a discussion in addition to comprehending and participating in chats.</li></ul>
FR-4	Response	<ul style="list-style-type: none"><li>• The bot ought to react to any input it gets.</li></ul>
FR-5	User data storage	<ul style="list-style-type: none"><li>• From user input, the bot should be able to build private cloud or virtual machine instances.</li></ul>
FR-6	Send users data	<ul style="list-style-type: none"><li>• The data can be sent as a text message.</li><li>• The data can be sent as a graph and accompanying text, if requested by the user.</li></ul>

### 4.2 NON-FUNCTIONAL REQUIREMENTS

**Non-functional Requirements:** Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	<ul style="list-style-type: none"><li>• Web interface.</li><li>• One account for all locations.</li><li>• API.</li></ul>
NFR-2	<b>Security</b>	<ul style="list-style-type: none"><li>• The bot should authenticate the users before being able to query information from the bot.</li><li>• Encrypted Storage.</li></ul>
NFR-3	<b>Reliability</b>	<ul style="list-style-type: none"><li>• Faster than humans and because of the repetitive tasks.</li></ul>
NFR-4	<b>Performance</b>	<ul style="list-style-type: none"><li>• Response time is less</li></ul>
NFR-5	<b>Availability</b>	<ul style="list-style-type: none"><li>• Service level agreement (SLA)</li></ul>
NFR-6	<b>Scalability</b>	<ul style="list-style-type: none"><li>• The product should be open-source and published under some license.</li></ul>

# PROJECT DESIGN

## 5.1 DATAFLOW DIAGRAM

The classic visual representation of how information moves through a system is a data flow diagram (DFD). A tidy and understandable DFD can graphically represent the appropriate quantity of the system demand. It demonstrates how information enters and exits the system, what modifies the data, and where information is kept.

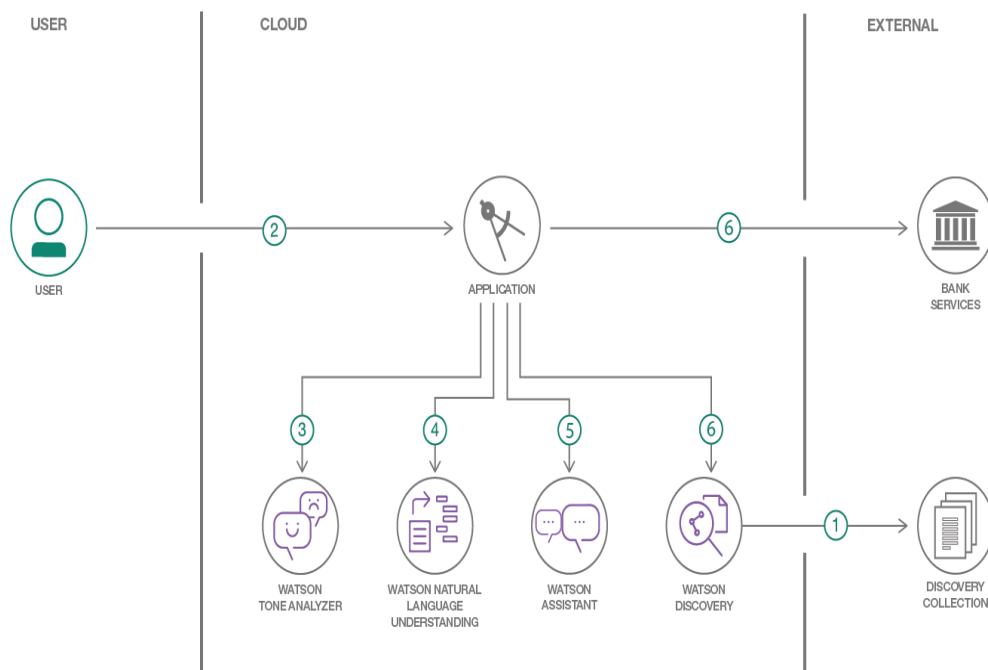
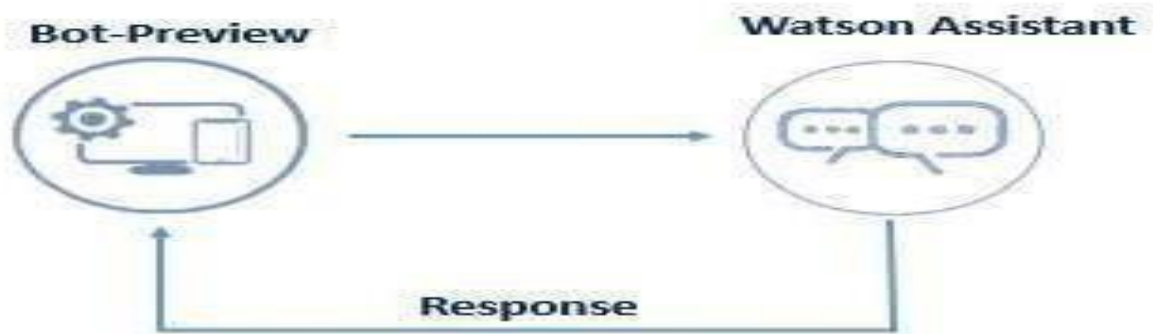


Fig 1-Data Flow Diagram

## 5.2 SOLUTION & TECHNICAL ARCHITECTURE



## 5.3 USER STORIES

User Story Number	User story/Task
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.
USN-2	As a user, I can check the Interest Rates of Savings Account
USN-3	As a user, I can check the MinimumBalance of my Savings Account
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
USN-5	As a user, I want to get details on the procedure to close my Current Account
USN-6	As a user, I can choose the Type of Loans to know the information on choosing anessential loan scheme
USN-5	As a user, I want to get details on the procedure to close my Current Account



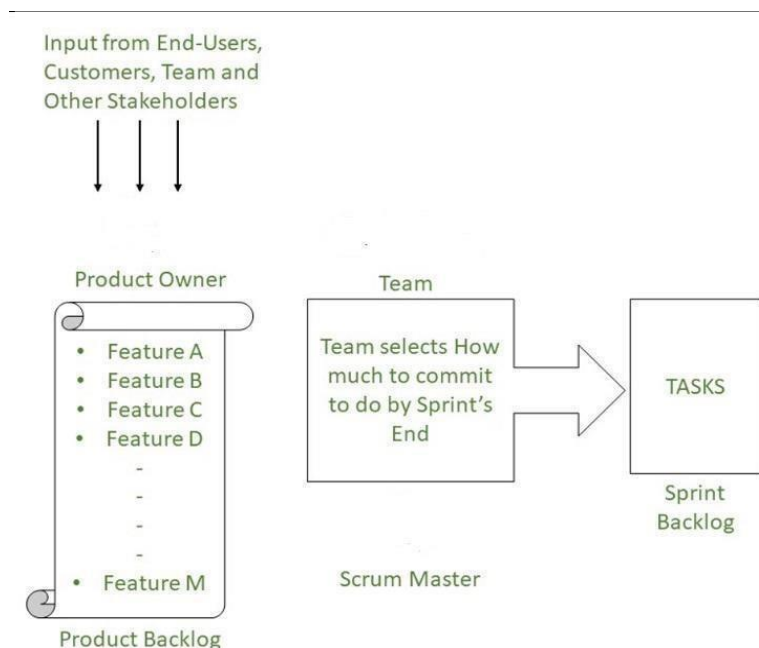
# PROJECT PLANNING & SCHEDULING

## 6.1 SPRINT PLANNING & ESTIMATION

### Planning:

The release plan provides a high-level view of what the team intends to build, and what the team intends to deploy at the end of the Release. It does not provide a detailed view of how the team would plan to drive the work within Sprints. Once Releases and their Sprints are known, the team starts planning for each Sprint. This occurs at the beginning of each Sprint, i.e., on the first day of Sprint, and allows the team to be more explicit about what they will deliver at the end of the Sprint. The team considers the Scrum Master's suggestions as well as the Product Owner's prioritized list. The team then decides what they can take from the prioritized backlog for this Sprint, then breaks down the tasks for each user story and assigns it to themselves.

In the Sprint Planning meeting, the team will be focused more on what they need to do, to complete user stories selected for that Sprint. This meeting is attended by the Product Owner, Scrum Master, all the team members like analysts, programmers, testers, database engineers, user interaction designers, and so on. The output of the Sprint planning can be recorded in a simple spreadsheet or an ALM tool (Application Lifecycle Management).



## 6.2 SPRINT DELIVERY SCHEDULE

Since sprints take place over a fixed period of time, it's critical to avoid wasting time during planning and development. And this is precisely where sprint scheduling enters the equation.

In case you're unfamiliar, a sprint schedule is a document that outlines sprint planning from end to end. It's one of the first steps in the agile sprint planning process—and something that requires adequate research, planning, and communication.

### Create Sprint Schedule:

The product owner typically determines the duration of the sprint and checks with the team to make sure it aligns with its workloads and resources.

While there may be multiple project heads collaborating on a sprint, it's ultimately important to have one owner who oversees all aspects of sprint planning. Likewise, there should be one single schedule to avoid confusion and keep projects running according to a set plan.

Teams often run into trouble when they create more than one schedule. This can create conflict and derail projects midway through their cycles. To ensure things stay on track, one schedule makes sense.



## 6.3 REPORTS FROM JIRA

JIRA offers reporting in a number of different formats. Project reports that are available from the home screen of the selected project, Gadgets that can be added and arranged in Dashboards and for each filter, the issue navigator offers various output formats that can be used in third party reporting software. Additionally, we will mention some advanced methods that customers have been using.

### Standard Reports

In JIRA, a project will automatically offer standard reports available to the user without any necessary configuration. These standard reports comprise a wide range of reporting applications such as time tracking, workload and also abstract reports like Pie Charts that can be used in various ways.



## CODING & SOLUTIONING (Explain the features added in the project along with code)

### 7.1 FEATURE 1

#### Purpose of Having Coding Standards:

- A coding standard gives a uniform appearance to the codes written by different engineers.
- It improves readability, and maintainability of the code and it reduces complexity also.
- It helps in code reuse and helps to detect error easily
- It promotes sound programming practices and increases efficiency of the programmers.

### **1.Limited use of global:**

These rules tell about which types of data that can be declared global and the data that can't be.

### **2.Standard headers for different modules:**

For better understanding and maintenance of the code, the header of different modules should follow some standard format and information. The header format must contain below things that is being used in various companies:

- Name of the module
- Date of module creation
- Author of the module
- Modification history
- Synopsis of the module about what the module does
- Different functions supported in the module along with their input output parameters

### **3.Naming conventions for local variables, global variables, constants and functions:**

- Meaningful and understandable variables name helps anyone to understand the reason of using it.
- Local variables should be named using camel case lettering starting with small letter (e.g. **localData**) whereas Global variables names should start with a capital letter (e.g. **GlobalData**). Constant names should be formed using capital letters only (e.g. **CONSDATA**).
- It is better to avoid the use of digits in variable names.
- The names of the function should be written in camel case starting with small letters.
- The name of the function must describe the reason of using the function clearly and briefly.

### **4.Indentation:**

Proper indentation is very important to increase the readability of the code. For making the code readable, programmers should use White spaces properly. Some of the spacing conventions are given below:

- There must be a space after giving a comma between two function arguments.
- Each nested block should be properly indented and spaced.
- Proper Indentation should be there at the beginning and at the end of each block in the program.
- All braces should start from a new line and the code following the end of braces also start from a new line.

## 7.2 FEATURE 2

### Advantages of Coding Guidelines:

- Coding guidelines increase the efficiency of the software and reduces the development time.
- Coding guidelines help in detecting errors in the early phases, so it helps to reduce the extra cost incurred by the software project.
- If coding guidelines are maintained properly, then the software code increases readability and understandability thus it reduces the complexity of the code.
- It reduces the hidden cost for developing the software.

### 1. Avoid using a coding style that is too difficult to understand:

Code should be easily understandable. The complex code makes maintenance and debugging difficult and expensive.

### 2.Code should be well documented:

The code should be properly commented for understanding easily. Comments regarding the statements increase the understandability of the code.

### 3.Try not to use GOTO statement:

GOTO statement makes the program unstructured, thus it reduces the understandability of the program and also debugging becomes difficult.

```
Here is an example of the utility class.
/**
 * Utilities for manipulation with domain objects.
 *
 * @author radek.hecl
 */
public class DomainUtils {

    /**
     * Prevents construction.
     */
    private DomainUtils() {
    }

    /**
     * Null safe copy date function.
     *
     * @param source source date, can be null
     * @return copy of the source date or null if source is null
     */
    public static Date copyDate(Date source) {
        if (source == null) {
            return null;
        }
        return new Date(source.getTime());
    }

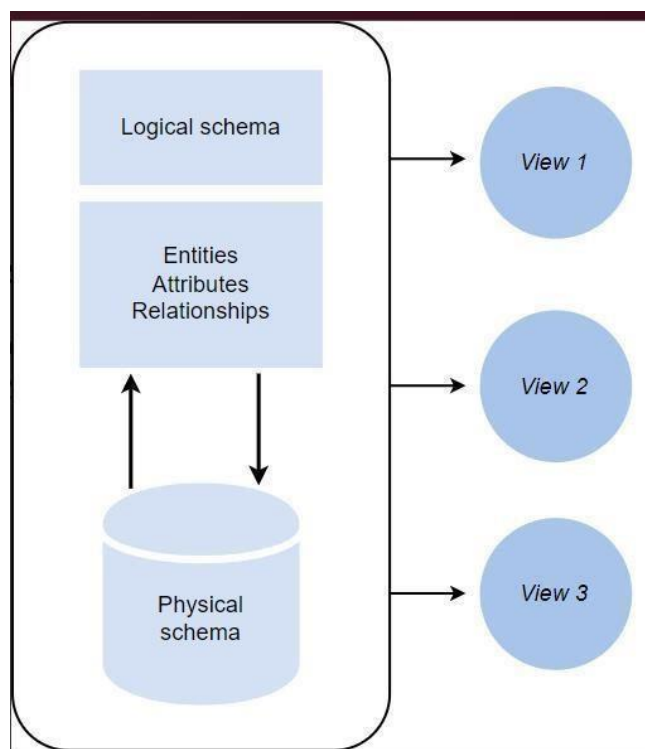
    // ... other static methods
}
```

## 7.3 DATABASE SCHEME

A **database schema** is an abstract design that represents the storage of your data in a database. It describes both the organization of data and the relationships between tables in a given database. Developers plan a database schema in advance so they know what components are necessary and how they will connect to each other.

### Database schema types

There are two main database schema types that define different parts of the schema: **logical** and **physical**.



## TESTING

### 8.1 TEST CASES

TESTCASE ID	FEATURE TYPE	COMPONENT	TEST SCENARIO
Login Page TC_001	Functional	Home Page	Verify user is able to see
Login Page TC_003	Functional	Home page	Verify user is able to login
Login Page TC_004	Functional	Login page	Verify user is able to login
Login Page TC_004	Functional	Login page	Verify user is able to login
Login Page TC_005	Functional	Login page	Verify user is able to login

### 8.2 USER ACCEPTANCE TESTING

#### 1.Purpose of Document

The purpose of this document is to briefly explain the test coverage and open issues of the [ProductName] project at the time of the release to User Acceptance Testing (UAT).

#### 2.Defect Analysis

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved.

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	4	2	3	20
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	14	13	26	77

### 3. Test Case Analysis


Section	Total Cases	Not Tested	Fail	Pass
Print Engine	7	0	0	7
Client Application	51	0	0	51
Security	2	0	0	2
Outsource Shipping	3	0	0	3

Exception Reporting	9	0	0	9
Final Report Output	4	0	0	4
Version Control	2	0	0	2

## RESULTS


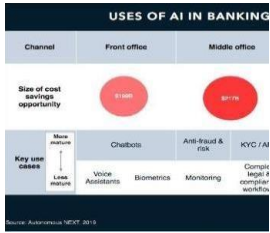

### 9.1 PERFORMANCE METRICS

#### Model Performance Testing:

S.no	Parameter	Screenshots/Values
1.	Dashboard Designs	Screenshots/values
2.	Data Responsiveness	
3.	Amount Data To Rendered	No of scene Added



Project team shall fill the following information in model performance testing template

S.No.	Parameter	Values	Screenshot
1.	Model Summary	-	
2.	Accuracy	Training Accuracy Validation Accuracy	
3.	Confident Score	Class Detected	

## **ADVANTAGES & DISADVANTAGES**

### **Advantages of AI for Banking:**

AI can help the bank understand the expenditure pattern of the customer, The bank can come up with a customized investment plan & assist the customers for budgeting, banks can send the notification about the advice for keeping a check on the expenses and investments based on the data, The transactional & other data sources can be tracked to help understand the customer's behaviour and preferences to improve their experience.

Artificial intelligent can sift through massive amounts of data and identify patterns that might elude human observers, One area where this capacity is particularly relevant is in fraud prevention, Artificial intelligence and machine learning solutions are deployed by many financial service providers to detect fraud in real time and mobile banking become increasingly popular as a tool for 24/7 transaction, AI enables Banks to access customer data, such as detailed demographics, website analytics & records of online and offline transactions, machine learning can integrate & analyze information.

Risk assessment process while giving loans requires both accuracy & confidentiality, It is a very complex & critical process, Artificial intelligence can handle & simplify this process by analyzing relevant data of the prospective borrower, Artificial intelligence can combine & analyze data related to the latest transactions, market trends, and the most recent financial activities to identify the potential risks in giving the loan.

Banks must be bankable for presenting secure & swift transactions, Artificial intelligence is designed to detect the fraud in the transactions on the basis of a pre-defined set of rules, the mobile app can detect any suspicious activity in the customer's account on the basis of behaviour analysis, any online transaction of a huge amount from the customer's account which has a history of small transactions can be detected instantly.

Artificial intelligence plays a vital role in protecting personal data, As we witness a rapid rise in the instances of cybercrimes, AI-based fraud detection can prevent such attempts, So, for the banking and finance sector, AI has a tremendous scope in the domain of cybersecurity, The mobile app development services can detect the issue of fraud & data breach for the banks.

### **Disadvantages of AI for Banking:**

The production & maintenance of artificial intelligence requires high costs as they are very complex machines, AI consists of advanced software programs that require regular updates to meet the needs of the changing environment, In the case of critical failures, the procedure to reinstate the system and recover lost codes may require enormous time & cost.

Although Artificial Intelligence can learn & improve, it still can't make judgment calls, Humans can take individual circumstances and judgment calls into account when making decisions, something that AI might never be able to do, Replacing adaptive human behaviour with AI may cause irrational behaviour within ecosystems of humans & things.

AI can offer a lot of power to the few individuals who are controlling it, so, AI carries the risk and takes control away from humans while dehumanizing actions in several ways, Artificial Intelligence delivered to wrong hands can turn out to be a serious threat to humankind, If individuals start thinking destructively, they can generate havoc with these advanced machines.

Artificial intelligence allows you to replace the workforce with machines that can lead to wide reaching unemployment, if the use of AI becomes rampant, people will be highly dependent on the machines & lose their creative power, Be it banking or any other sector, AI can increase the unemployment rate, Individuals with nothing to do can lead to the devastating use of their minds.

### **CONCLUSION**

Banking holds a crucial role in our day-to-day life. We must adhere to the banking system as responsible citizens.

## FUTURE SCOPE

Artificial intelligence, or AI for short, is encountered in every aspect of our lives and the world we live in. Robots and machines are starting to perform certain tasks even better than us by deep learning and mimicking human intelligence and actions.

- While 50% of respondents say they know a little about AI, only 10% consider themselves well trained AI.
- While 32% of respondents say they are worried about AI, 30% are enthusiastic and 27% are hopeful.
- 40% of respondents say they expect AI to be much smarter than them.

When we turn to the banking industry, it is more likely to talk about the benefits of AI in general. The role of AI in the banking industry is to enable banking services to run much more efficiently, securely and promptly, rather than taking jobs from people.

This is just the beginning, because AI powered credit scoring has the ability to easily analyze much more complex data.

Robotic process automation produces very important outputs to reduce operational costs.

## SOURCE CODE

### About.html

```
<!DOCTYPE html>

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

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <meta charset="utf-8">

  <meta name="keywords" content="">

  <meta name="description" content="">

  <title>About</title>

  <link rel="stylesheet" href="static/css/nicepage.css" media="screen">

  <link rel="stylesheet" href="static/css/About.css" media="screen">

  <script class="u-script" type="text/javascript" src="static/js/jquery.js" defer=""></script>
```

<script class="u-script" type="text/javascript" src="static/js/nicepage.js"defer=""></script>

<meta name="generator" content="Nicepage 4.21.12, nicepage.com">

<link id="u-theme-google-font" rel="stylesheet"

href="https://fonts.googleapis.com/css?family=Roboto:100,100i,300,300i,400,400i,500,500i,700,700i,900,900i|Open+Sans:300,300i,400,400i,500,500i,600,600i,700,700i,800,800i"

```
<script type="application/ld+json">{
    "@context": "http://schema.org",
    "@type": "Organization",
    "name": "Site1"
}</script>

<meta name="theme-color" content="#478ac9">

<meta property="og:title" content="About">

<meta property="og:description" content="">

<meta property="og:type" content="website">

</head>

<body class="u-body u-xl-mode" data-lang="en"><header class="u-clearfix u-header u-header"
id="sec-7119"><div class="u-clearfix u-sheet u-sheet-1">

    <nav class="u-menu u-menu-dropdown u-offcanvas u-menu-1">

        <div class="menu-collapse" style="font-size: 1rem; letter-spacing: 0px;">

            <a class="u-button-style u-custom-left-right-menu-spacing u-custom-padding-
bottom u-
custom-top-bottom-menu-spacing u-nav-link u-text-active-palette-1-base u-
text-hover-palette-2-
base" href="#">

                <svg class="u-svg-link" viewBox="0 0 24 24"><use
xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#menu-hamburger"></use></svg>

                <svg class="u-svg-content" version="1.1" id="menu-hamburger" viewBox="0 0 1616"
x="0px" y="0px" xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns="http://www.w3.org/2000/svg"><g><rect y="1" width="16" height="2"></rect><rect
y="7" width="16" height="2"></rect><rect y="13" width="16" height="2"></rect>

            </g></svg>

            </a>

        </div>

    </nav>

</div>
```

```

<div class="u-nav-container">

    <ul class="u-nav u-unstyled u-nav-1"><li class="u-nav-item"><a class="u-button-style u-
nav-link u-text-active-palette-1-base u-text-hover-palette-2-base" href="{ { url_for('bank') } }"
style="padding: 10px 22px;">Home</a>

</li><li class="u-nav-item"><a class="u-button-style u-nav-link u-text-active-palette-1-base u-text-
hover-palette-2-base" href="{ { url_for('about') } }" style="padding: 10px 22px;">About</a>

</li><li class="u-nav-item"><a class="u-button-style u-nav-link u-text-active-palette-1-base u-text-
hover-palette-2-base" href="{ { url_for('contact') } }" style="padding: 10px
22px;">Contact</a>

</li></ul>

</div>

<div class="u-nav-container-collapse">

    <div class="u-black u-container-style u-inner-container-layout u-opacity u-opacity-95 u-
sidenav">

        <div class="u-inner-container-layout u-sidenav-overflow">

            <div class="u-menu-close"></div>

            <ul class="u-align-center u-nav u-popupmenu-items u-unstyled u-nav-2"><li class="u-
nav-item"><a class="u-button-style u-nav-link" href="{ { url_for('bank')
} }">Home</a>

</li><li class="u-nav-item"><a class="u-button-style u-nav-link" href="{ { url_for('about')
} }">About</a>

</li><li class="u-nav-item"><a class="u-button-style u-nav-link" href="{ { url_for('contact')
} }">Contact</a>

</li></ul>

        </div>

    </div>

    <div class="u-black u-menu-overlay u-opacity u-opacity-70"></div>

</div>

```

```

</nav>

<div class="u-shape u-shape-svg u-text-palette-1-base u-shape-1">

  <svg class="u-svg-link" preserveAspectRatio="none" viewBox="0 0 160 160"
style=""><use xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#svg-
dea9"></use></svg>

  <svg class="u-svg-content" viewBox="0 0 160 160" x="0px" y="0px" id="svg-
dea9"><path d="M157.5,72.3l-74-70.9c-1.9-1.9-5-1.9-6.9,0l-
74.1,71C0.9,74,0,76.1,0,78.3c0,4.6,3.7,8.3,8.3,8.3H20V150c0,5.5,4.5,10,10,10
h28.3c2.8,0,5-2.2,5-5v-43.3c0-0.9,0.7-1.7,1.7-
1.7h30c0.9,0,1.7,0.8,1.7,1.7V155c0,2.8,2.2,5,5H130c5.5,0,10-4.5,10-10V86.7h11.7
c4.6,0,8.3-3.7,8.3-8.3C160,76.1,159.1,74,157.5,72.3z"></path></svg>

</div>

<div class="u-shape u-shape-svg u-text-palette-1-base u-shape-2">

  <svg class="u-svg-link" preserveAspectRatio="none" viewBox="0 0 148 160"
style=""><use xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#svg-
8c3b"></use></svg>

  <svg class="u-svg-content" viewBox="0 0 148 160" x="0px" y="0px" id="svg- 8c3b"><path
d="M104,12.1c16.5,16.2,16.5,42.4,0,58.6s-43.3,16.2-59.8,0s-16.5-42.4,0-
58.6S87.5-4,104,12.1 M138.9,106.9
c-38.6-25.5-91.2-25.5-129.7,0C3.5,110.7,0,117.1,0,124.1V160h148v-
35.9C148.1,117.1,144.6,110.7,138.9,106.9L138.9,106.9z"></path></svg>

</div><span class="u-file-icon u-icon u-icon-1"></span>

</div></header>

<section class="u-align-center u-clearfix u-custom-color-1 u-section-1"
id="carousel_3057">

  <div class="u-clearfix u-sheet u-sheet-1">

    <div alt="" class="u-image u-image-circle u-image-1" data-image-width="1200" data-image-
height="800"></div>

```



<h2 class="u-align-center u-text u-text-default u-text-1">Hi, I am Mr Flexon</h2>

<p class="u-align-left u-text u-text-palette-4-base u-text-2"><span class="u-file-iconu-  
icon"></span> &nbsp;About The  
Project<br>Project Description:<br>In this project, we will be building a

bot using Watson's assistant. This chat should have the following capabilities:<br>TheBot  
should be able to guide a customer to create a bank account.<br>The Bot should beable to answer  
loan queries.<br>The Bot should be able to answer general banking queries.<br>The Bot should  
be able to answer queries regarding net banking.

</p>

</div>

</section>

```
<script> window.watsonAssistantChatOptions =  
{  
  integrationID: "5f8a8814-542d-4d4d-86ab-f30b90096f6c", / The ID of this integration.region: "us-  
south", / The region your integration is hosted in.  
  serviceInstanceID: "23571e7e-fdd2-47af-b02a-45f7c14411ae", / The ID of yourservice  
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"><divclass="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>

```

## Contact.html

```

<!DOCTYPE html>
<html style="font-size: 16px;" lang="en"><head>
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta charset="utf-8">
    <meta name="keywords" content="">
    <meta name="description" content="">
    <title>Contact</title>
    <link rel="stylesheet" href="static/css/nicepage.css" media="screen">
<link rel="stylesheet" href="static/css/Contact.css" media="screen">
    <script class="u-script" type="text/javascript" src="static/js/jquery.js" defer=""></script>
    <script class="u-script" type="text/javascript" src="static/js/nicepage.js" defer=""></script>
    <meta name="generator" content="Nicepage 4.21.12, nicepage.com">
    <link id="u-theme-google-font" rel="stylesheet"
href="https://fonts.googleapis.com/css?family=Roboto:100,100i,300,300i,400,400i,500,500i,700,700i,900,900i|Open+Sans:300,300i,400,400i,500,500i,600,600i,700,700i,800,800i">

    <script type="application/ld+json">{
        "@context": "http://schema.org",
        "@type": "Organization",
        "name": "Site1"
    }</script>

```

```

<meta name="theme-color" content="#478ac9">
<meta property="og:title" content="Contact">
<meta property="og:description" content="">
<meta property="og:type" content="website">
</head>
<body class="u-body u-xl-mode" data-lang="en"><header class="u-clearfix u-header u-header"
id="sec-7119"><div class="u-clearfix u-sheet u-sheet-1">
  <nav class="u-menu u-menu-dropdown u-offcanvas u-menu-1">
    <div class="menu-collapse" style="font-size: 1rem; letter-spacing: 0px;">
      <a class="u-button-style u-custom-left-right-menu-spacing u-custom-padding-bottom u-
custom-top-bottom-menu-spacing u-nav-link u-text-active-palette-1-base u-text-hover-palette-2- base"
href="#">
        <svg class="u-svg-link" viewBox="0 0 24 24"><use
xmlns:xlink="http:// www.w3.org/1999/xlink" xlink:href="#menu-hamburger"></use></svg>
        <svg class="u-svg-content" version="1.1" id="menu-hamburger" viewBox="0 0 16 16"
x="0px" y="0px" xmlns:xlink="http:// www.w3.org/1999/xlink"
xmlns="http:// www.w3.org/2000/svg"><g><rect y="1" width="16" height="2"></rect><rect y="7"
width="16" height="2"></rect><rect y="13" width="16" height="2"></rect>
</g></svg>
      </a>
    </div>
    <div class="u-nav-container">
      <ul class="u-nav u-unstyled u-nav-1"><li class="u-nav-item"><a class="u-button-style u-
nav-link u-text-active-palette-1-base u-text-hover-palette-2-base" href="{{ url_for('bank') }}"
style="padding: 10px 22px;">Home</a>
</li><li class="u-nav-item"><a class="u-button-style u-nav-link u-text-active-palette-1-base u-text-
hover-palette-2-base" href="{{ url_for('about') }}" style="padding: 10px 22px;">About</a>
</li><li class="u-nav-item"><a class="u-button-style u-nav-link u-text-active-palette-1-base u-text- hover-
palette-2-base" href="{{ url_for('contact') }}" style="padding: 10px 22px;">Contact</a>
</li></ul>
    </div>
    <div class="u-nav-container-collapse">
      <div class="u-black u-container-style u-inner-container-layout u-opacity u-opacity-95 u-sidenav">
        <div class="u-inner-container-layout u-sidenav-overflow">
          <div class="u-menu-close"></div>
          <ul class="u-align-center u-nav u-popupmenu-items u-unstyled u-nav-2"><li class="u-
nav-item"><a class="u-button-style u-nav-link" href="{{ url_for('bank') }}">Home</a>
</li><li class="u-nav-item"><a class="u-button-style u-nav-link" href="{{ url_for('about')
 }}">About</a>
</li><li class="u-nav-item"><a class="u-button-style u-nav-link" href="{{ url_for('contact')

```

```

}}">Contact</a>
</li></ul>
</div>
</div>
<div class="u-black u-menu-overlay u-opacity u-opacity-70"></div>
</div>
</nav>
<div class="u-shape u-shape-svg u-text-palette-1-base u-shape-1">
  <svg class="u-svg-link" preserveAspectRatio="none" viewBox="0 0 160 160" style=""><use
xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#svg-dea9"></use></svg>
  <svg class="u-svg-content" viewBox="0 0 160 160" x="0px" y="0px" id="svg-
dea9"><path d="M157.5,72.3l-74-70.9c-1.9-1.9-5-1.9-6.9,0l-
74.1,71C0.9,74,0,76.1,0,78.3c0,4.6,3.7,8.3,8.3,8.3H20V150c0,5.5,4.5,10,10,10
h28.3c2.8,0,5-2.2,5-5v-43.3c0-0.9,0.7-1.7,1.7-
1.7h30c0.9,0,1.7,0.8,1.7,1.7V155c0,2.8,2.2,5,5H130c5.5,0,10-4.5,10-10V86.7h11.7
c4.6,0,8.3-3.7,8.3-8.3C160,76.1,159.1,74,157.5,72.3z"></path></svg>
</div>
<div class="u-shape u-shape-svg u-text-palette-1-base u-shape-2">
  <svg class="u-svg-link" preserveAspectRatio="none" viewBox="0 0 148 160" style=""><use
xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#svg-8c3b"></use></svg>
  <svg class="u-svg-content" viewBox="0 0 148 160" x="0px" y="0px" id="svg-8c3b"><path
d="M104,12.1c16.5,16.2,16.5,42.4,0,58.6s-43.3,16.2-59.8,0s-16.5-42.4,0-58.6S87.5-4,104,12.1
M138.9,106.9
c-38.6-25.5-91.2-25.5-129.7,0C3.5,110.7,0,117.1,0,124.1V160h148v-
35.9C148.1,117.1,144.6,110.7,138.9,106.9L138.9,106.9z"></path></svg>
</div><span class="u-file-icon u-icon u-icon-1"></span>
</div></header>
<section class="u-clearfix u-custom-color-1 u-section-1" id="sec-2955">
<div class="u-clearfix u-sheet u-sheet-1">
  <h2 class="u-align-center u-text u-text-default u-text-1">Team Information</h2>
  <div class="u-expanded-width-sm u-expanded-width-xs u-list u-list-1">
    <div class="u-repeater u-repeater-1">
      <div class="u-container-align-center u-container-style u-list-item u-repeater-item">
        <div class="u-container-layout u-similar-container u-valign-top u-container-layout-1">
          <h6 class="u-align-center u-text u-text-default u-text-2">Hariram B</h6>
          <p class="u-align-center u-text u-text-default u-text-
3">212219220012<br>hariram26072@gmail.com<br>
        </p>
      </div>
    </div>
  </div>
</div>

```



```

};
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>

</body></html>

```

## Home.html

```

<!DOCTYPE html>
<html style="font-size: 16px;" lang="en"><head>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <meta charset="utf-8">
  <meta name="keywords" content="">
  <meta name="description" content="">
  <title>Home</title>
  <link rel="stylesheet" href="static/css/nicepage.css" media="screen">

  <link rel="stylesheet" href="static/css/Home.css" media="screen">
  <script class="u-script" type="text/javascript" src="static/js/jquery.js" defer=""></script>
  <script class="u-script" type="text/javascript" src="static/js/nicepage.js" defer=""></script>
  <meta name="generator" content="Nicepage 4.21.12, nicepage.com">
  <link id="u-theme-google-font" rel="stylesheet"
href="https://fonts.googleapis.com/css?family=Roboto:100,100i,300,300i,400,400i,500,500i,700,700i,900,900i|Open+Sans:300,300i,400,400i,500,500i,600,600i,700,700i,800,800i">
  <link id="u-page-google-font" rel="stylesheet"
href="https://fonts.googleapis.com/css?family=Raleway:100,100i,200,200i,300,300i,400,400i,500,500i,600,600i,700,700i,800,800i,900,900i">

  <script type="application/ld+json">{
    "@context": "http://schema.org",
    "@type": "Organization",

```

```

        "name": "Site1"
    }</script>
    <meta name="theme-color" content="#478ac9">
    <meta property="og:title" content="Home">
    <meta property="og:description" content="">
    <meta property="og:type" content="website">
    </head>
    <body class="u-body u-xl-mode" data-lang="en"><header class="u-clearfix u-header u-header"
id="sec-7119"><div class="u-clearfix u-sheet u-sheet-1">
    <nav class="u-menu u-menu-dropdown u-offcanvas u-menu-1">
    <div class="menu-collapse" style="font-size: 1rem; letter-spacing: 0px;">
    <a class="u-button-style u-custom-left-right-menu-spacing u-custom-padding-bottom u-
custom-top-bottom-menu-spacing u-nav-link u-text-active-palette-1-base u-text-hover-palette-2- base"
href="#">
        <svg class="u-svg-link" viewBox="0 0 24 24"><use
xmlns:xlink="http:// www.w3.org/1999/xlink" xlink:href="#menu-hamburger"></use></svg>
        <svg class="u-svg-content" version="1.1" id="menu-hamburger" viewBox="0 0 16 16"
x="0px" y="0px" xmlns:xlink="http:// www.w3.org/1999/xlink"
xmlns="http:// www.w3.org/2000/svg"><g><rect y="1" width="16" height="2"></rect><rect y="7"
width="16" height="2"></rect><rect y="13" width="16" height="2"></rect>
</g></svg>
    </a>
    </div>
    <div class="u-nav-container">
    <ul class="u-nav u-unstyled u-nav-1"><li class="u-nav-item"><a class="u-button-style u-
nav-link u-text-active-palette-1-base u-text-hover-palette-2-base" href="{{ url_for('bank') }}"
style="padding: 10px 22px;">Home</a>
</li><li class="u-nav-item"><a class="u-button-style u-nav-link u-text-active-palette-1-base u-text-
hover-palette-2-base" href="{{ url_for('about') }}" style="padding: 10px 22px;">About</a>
</li><li class="u-nav-item"><a class="u-button-style u-nav-link u-text-active-palette-1-base u-text-
hover-palette-2-base" href="{{ url_for('contact') }}" style="padding: 10px 22px;">Contact</a>
</li></ul>
    </div>
    <div class="u-nav-container-collapse">
    <div class="u-black u-container-style u-inner-container-layout u-opacity u-opacity-95 u-sidenav">
    <div class="u-inner-container-layout u-sidenav-overflow">
    <div class="u-menu-close"></div>
    <ul class="u-align-center u-nav u-popupmenu-items u-unstyled u-nav-2"><li class="u-
nav-item"><a class="u-button-style u-nav-link" href="{{ url_for('bank') }}">Home</a>
</li><li class="u-nav-item"><a class="u-button-style u-nav-link" href="{{ url_for('about')

```

```

}}">About</a>
</li><li class="u-nav-item"><a class="u-button-style u-nav-link" href="{ { url_for('contact')
}}">Contact</a>
</li></ul>

</div>
</div>
<div class="u-black u-menu-overlay u-opacity u-opacity-70"></div>
</div>
</nav>
<div class="u-shape u-shape-svg u-text-palette-1-base u-shape-1">
<svg class="u-svg-link" preserveAspectRatio="none" viewBox="0 0 160 160" style=""><use
xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#svg-dea9"></use></svg>
<svg class="u-svg-content" viewBox="0 0 160 160" x="0px" y="0px" id="svg-
dea9"><path d="M157.5,72.3l-74-70.9c-1.9-1.9-5-1.9-6.9,0l-
74.1,71C0.9,74,0,76.1,0,78.3c0,4.6,3.7,8.3,8.3,8.3H20V150c0,5.5,4.5,10,10,10,
h28.3c2.8,0,5-2.2,5-5v-43.3c0-0.9,0.7-1.7,1.7-
1.7h30c0.9,0,1.7,0.8,1.7,1.7V155c0,2.8,2.2,5,5,5H130c5.5,0,10-4.5,10-10V86.7h11.7
c4.6,0,8.3-3.7,8.3-8.3C160,76.1,159.1,74,157.5,72.3z"></path></svg>
</div>
<div class="u-shape u-shape-svg u-text-palette-1-base u-shape-2">
<svg class="u-svg-link" preserveAspectRatio="none" viewBox="0 0 148 160" style=""><use
xmlns:xlink="http://www.w3.org/1999/xlink" xlink:href="#svg-8c3b"></use></svg>
<svg class="u-svg-content" viewBox="0 0 148 160" x="0px" y="0px" id="svg-8c3b"><path
d="M104,12.1c16.5,16.2,16.5,42.4,0,58.6s-43.3,16.2-59.8,0s-16.5-42.4,0-58.6S87.5-4,104,12.1
M138.9,106.9
c-38.6-25.5-91.2-25.5-129.7,0C3.5,110.7,0,117.1,0,124.1V160h148v-
35.9C148.1,117.1,144.6,110.7,138.9,106.9L138.9,106.9z"></path></svg>
</div><span class="u-file-icon u-icon u-icon-1"></span>
</div></header>
<section class="u-clearfix u-image u-valign-bottom-xs u-section-1" id="carousel_9de0" data-
image-width="1980" data-image-height="1513">
<div class="u-clearfix u-layout-wrap u-layout-wrap-1">
<div class="u-layout">
<div class="u-layout-row">
<div class="u-align-left u-container-style u-layout-cell u-left-cell u-size-29 u-layout-cell-1">
<div class="u-container-layout u-container-layout-1">
<div class="u-border-6 u-border-palette-4-base u-line u-line-horizontal u-line-1"></div>
<h1 class="u-custom-font u-font-raleway u-text u-text-palette-4-base u-title u-text-1"> AI based
discourse for Banking Industry </h1>
<p class="u-text u-text-palette-4-base u-text-2"> Team

```



```

ID:&nbsp;  PNT2022TMID03423<span style="font-size: 1.5rem;"></span>
    <br> Team Leader:&nbsp;  Hariram B<br>Team Members:&nbsp;  Anandasayanam
K,Gopinathan K, Maheswara Pandian G<br>
    </p>
</div>
</div>
<div class="u-container-style u-layout-cell u-right-cell u-size-31 u-layout-cell-2">
    <div class="u-container-layout u-container-layout-2">
        <div class="u-preserve-proportions u-shape u-shape-circle u-white u-shape-1"></div>
        
    </div>
</div>
</div>
</div>
</div>
</div>
</section>
<script>
window.watsonAssistantChatOptions = {
    integrationID: "5f8a8814-542d-4d4d-86ab-f30b90096f6c", / The ID of this integration.
    region: "us-south", / The region your integration is hosted in.
    serviceInstanceID: "23571e7e-fdd2-47af-b02a-45f7c14411ae", / 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>

## **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)
```

## **PREVIEW OF CHATBOT:**

<https://web-chat.global.assistant.watson.appdomain.cloud/preview.html?backgroundImageUrl=https%3A%2F%2Fus-south.assistant.watson.cloud.ibm.com%2Fpublic%2Fimages%2Fupx-23571e7e-fdd2-47af-b02a-45f7c14411ae%3A%3A6c1-64a0-4bb7-925c-e0f76ece7593&integrationID=d365db8b-9408-418f-a61b-e18a5f564312&region=us-south&serviceInstanceID=23571e7e-fdd2-47af-b02a-45f7c14411ae>

## **GITHUB:**

<https://github.com/IBM-EPBL/IBM-Project-49040-1660815389>