Banking Chatbot System

A close up of a logo

Description automatically generatedTA. Hazem Marawan

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**1. Preface**

This version will cover some new functionalities that make the system is more efficient and more easily like contacting with the bank any time by Bot and make operations easily and more quickly , some functionalities like Bill Payment , check the balance , view bank location , make notification to user about offers and view his last transaction .

* This is the first version of the SRS.

**2.Introduction**

A banking bot project is built using artificial algorithms that analyzes user’s queries and understand user’s message. The chatbot is designed for banks use where users can ask any bank related questions like loan, account, policy etc.. The chatbot recognizes the user's query and understands what he wants to convey and simultaneously answers them appropriately and store the messages encrypted.. The built in artificial intelligence chatbot realizes users requirements and provides suitable answers to the user. It also uses a graphical representation of a person speaking while giving answers as a real person would do.

**3. General Description**

|  |  |  |
| --- | --- | --- |
| **No.** | **Transaction / Function Name** | **Role.** |
| **1** | **Update Client’s Data** | **Use this option for owner to modify customer data, whether it is a name or a modification to their account.** |
| **2** | **Delete Client’s Account** | **Use this option for the owner to clear client data.** |
| **3** | **Insert New Client** | **Use this option for the owner to create a new customer account.** |
| **4** | **View Specific Client’s Data** | **Use this option for the owner to see specific customer data.** |
| **5** | **View All Clients Data** | **Use this option for the owner to see all customer data.** |
| **6** | **View All Transaction** | **Use this option for the owner to see all conversions that occur in the system.** |
| **7** | **View Account Balance** | **Users can inquire about the balance in his/her account using this option.** |
| **8** | **Bill Payment** | **Bill payment facility is provided to the users to make their utility payments online through Chatbot application. Using Chatbot, user can easily make their various bill payments like mobile, electricity, credit card etc.** |
| **9** | **View Credit Card Details** | **Using this option business user can inquire about amount due as well as limit (Available and Total cash and credit limit) on user's credit card from Chatbot.** |
| **10** | **Bank/ Branch Locator** | **Using this option a user can inquire the Banks/Branches which are closer to a specific location. The user is provided with the options to search for the bank’s Banks and branches in vicinity by entering the location name. The search results display the list of Banks/branches in the mentioned location. The user can also view the location of these Branches/Banks on Map and can navigate to the same.** |
| **11** | **View Recent Transactions** | **Using this option retail user can view the transactions taken place in account. The user can select a specific account to view the activities. It will also provide details like transaction description, date on which the transaction took place, as well as the amount and currency of the transaction.** |
| **12** | **Fund Transfer** | **Using this option, a retail user can initiate a payment to an existing payee.** |
| **13** | **Inquire about products** | **Using this option, a retail user can inquire about products and services offered by the bank, and can get the instructions on how to avail the same.** |
| **14** | **Inquire Upcoming Payments** | **Using this option retail / corporate user can inquire about payments which are due for payment in the following 30 days.** |
| **15** | **Feedback About System** | **The customer has the right to give feedback on how the system works.** |
| **16** | **Inquire About User's Spends** | **Using this option business user can inquire about his/her spends under a category / subcategory from Chatbot.** |
| **17** | **View Respond of Feedback About System** | **User will use this option to see the respond about his feedback and the message will describe any issue that he entered.** |

**4.User Requirements**

1. new customer / client can register on the system for first time  
   and enter all his information by Admin.
2. Customer / client will log-in to the system to start chat with Bot.
3. The user will chat with the bot about everything he needs.
4. The user can View Account Balance.
5. The user can pay bill via this bot.
6. The user can view his balance.
7. The user can view his last transaction.
8. The user can view the bank location.
9. The user can log-out at any time from this conversation.
10. The user can send feedback.
11. The user can view the respond about the feedback.
12. The user can change some information about him any time.
13. The user will get message about offers / services.

**5. Functional Requirements**

**5.1 Fill the Registration data:**

* **Description**: The use must enter his data in the first time
* **Requirements**: F-Name / L-Name / credit card number / National number / mail / …
* **Source:** Admin.
* **Pre-condition:** Start the Application of the Bank.
* **Post-condition:** The Bot will send to him verification number via mail and verify it.
* **Output:** Tell user that his account is verified.

**5.2 LOG-IN in to Chatbot App:**

* **Description**: The user will enter his ID / log in Requirements.
* **Requirements**: ID / log in Requirements.
* **Source:** User.
* **Pre-condition:** His log-in data is correct.
* **Post-condition:** he can chat with the Bot about any services or actions in his account or bank system.   
  NOTE: If his log-in data incorrect the Bot tell him that he has not the account access.
* **Output:** Access to conversation with the bot OR renter his data to access the conversation.

**5.3 LOG-Out from Chatbot App:**

* **Description**: log-out of his account.
* **Requirements**: Tell the Bot to log-out.
* **Source:** User.
* **Pre-condition:** Something like goodbye or log-out from user.
* **Post-condition:** Log-out from his account.
* **Output:** Open the log-in window.

**5.4 Check Account Balance:**

* **Description**: the user will chat with Bot about his balance.
* **Requirements**: Ask the Bot about the balance.
* **Source:** User.
* **Pre-condition:** Question about the user’s balance.
* **Post-condition:** The Bot will tell him his balance.
* **Output:** User’s balance will be displayed.

**5.5 Fund Transfer:**

* **Description**: The user chat with Bot about his last transfer / transaction.
* **Requirements**: Ask about the transactions.
* **Source:** User.
* **Pre-condition:** Questions about user’s transactions.
* **Post-condition:** The Bot will tell him the information about transaction.
* **Output:** All details about last user’s transaction.

**5.6 Bill Payment:**

* **Description**: The user can pay any bill with this Bot.
* **Requirements**: Tell the Bot to pay the bill and send the bill information.
* **Source:** User.
* **Pre-condition:** Check about the bill owned to the user.
* **Post-condition:** The Bot will tell the user when the pay operation ended about successful payment.  
  NOTE: If his balance can not fit the bill cost the Bot will send again that he can’t pay by this way.
* **Output:** The Bot tell that the payment is successful and show to the user the transaction number.

**5.7 Show ATM / Branch Locator:**

* **Description**: When the user needs to find the bank branches or its atm location.
* **Requirements**: Question about the location of the bank or any branches.
* **Source:** User.
* **Pre-condition:** Ask the Bot about the location.
* **Post-condition:** The Bot will find all location branches.
* **Output:** Show to the user all locations.

**5.8 Inquire about offers and services:**

* **Description**: It is like a notification but when he logged-in only.
* **Requirements**: New message that the bank has some new offers if you need to show it.
* **Source:** Bot.
* **Pre-condition:** New message that the bank has some new offers if you need to show it.
* **Post-condition:** The bank releases the offer to the user.
* **Output:** The Bot will tell the user about the offer and its description.

**5.9 respond to any input it receives:**

* **Description**: The Bot will respond to any message will entered in chat.   
  NOTE: If the Bot doesn’t understand the message, it should ask for more simplified message or more information if the Bot needs.
* **Requirements**: Any type of messages.
* **Source:**  User.
* **Pre-condition:** User will enter the message.
* **Post-condition:** The Bot will answer on this message.
* **Output:** Best answer about last entered message.

**5.10 make rate/feedback:**

* **Description**: User can send feedback about the bank or any operation the Bot has done it before.
* **Requirements**: Message with the feedback.
* **Source:**  User.
* **Pre-condition:** User will enter the feedback.
* **Post-condition:** The Bot will answer on this message that the message was sent to the Bank admin.
* **Output:** Message from Bot that the feedback sent successfully.

**6. Non-Functional Requirements**

**6.1 24/7 support.**

* The Bot will support any question at any time from the user.

**6.2 secure.**

* The system will disapprove any user cannot enter the minimum requirements of the system.

**6.3 The bot should reply under 10 seconds to users’ message.**

* The Bot will find the best answer and show it to the user less than 10 seconds.

**6.4 Talking to the bot should feel like talking to a person.**

* Simple talking like a human.

**6.5 easy to use.**

* Easy to contact with the Bot and use the system.

**6.6 Accuracy.**

* When it finds the solution (best answer) of the user problem or question.

**6.7 Reliability.**

* Achieve high reliability, should eliminate all bugs that may influence the code safety and issues with system components.

**6.8 Usability**

* The Bot will achieve all needs of user in real life with bank with some minutes and at any time.

**6.9 Availability**

* The Bot will be available at any time.

**6.10 Capacity**

* Reduce storage capacity.

**7. Appendices**

* Encryption : is the process of encoding a message or information in such a way that only authorized parties can access it and those who are not authorized cannot
* Artificial Intelligence : sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans.
* **References:**
* <https://en.wikipedia.org/wiki/Bot>
* <https://botter.istnetworks.com/botterforbanking?campaignid=2089962417&adgroupid=81445124522&gclid=Cj0KCQiAz53vBRCpARIsAPPsz8W3N-3qCVCDHVyKR7py3RbHgiLJrFTJAhOjckaGSyoFtOjuQv_hBfIaAjjJEALw_wcB>

**8. Stakeholders**

* **Bank Owner.**
* **All facilities and organizations contracted with Owner banks.**
* **People with bank accounts**