

Requirement Gathering and Preliminary Analysis

Project Name: Localized Chatbot for Bank Customer Care

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Team Name: Group 1

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1. Data Requirements :

- Data describing various customer services : **This data is required in all 3 languages.*
 1. Different types of bank accounts and benefits
 2. Different types of loans available
 3. Different types of Fixed deposits available
 4. Other financial plans and services
 5. General information (Currency exchange rates, bank opening hours, contact details)
- Data describing various bank procedures : **This data is required in all 3 languages.*
 1. How to open savings accounts and faqs on the procedure
 2. How to apply for loans and different queries on loan procedure
 3. Procedure for fixed deposits
 4. Procedure for online banking (Authorization, account balance checking security measures etc.)

Furthermore, a dummy bank database is required to train database querying actions.

2. Data Sources Identified :

Primary Data Sources:

Bank Websites, leaflets, bank procedure details obtained from a bank

Description:

There are many banks that support all three languages on their websites. Furthermore there are many FAQ sections (some need to be translated) which can be directly applied into our use. The data can be utilized using a web scrape.

Bank leaflets also come in different languages and have information that directly relates to informing customers about various services.

3. Preliminary Data Analysis :

Challenges or Issues:

- The amount of data that can be collected is quite limited.
- There are very limited Natural Language Processing resources specifically developed for Sinhala and Tamil languages.

- When implementing intent and action based models we may need to manually map intents and actions for our requirements.

4. Stakeholder Consultation :

Security Concerns:

It was mentioned that in this project the utmost care should be taken so that customer information and account details are not compromised. It is required that we follow guidelines and regulations that are absolutely necessary when using online banking systems. These include OTP authentication systems, two step verification etc.

5. Evaluation

The chatbot will be evaluated based on user feedback. Since this bot is to be used by the general public we hope to give general users within the university to test. User feedback provides insights into how well the chatbot is functioning, what areas need improvement, and what aspects are appreciated by users. It will be important to understand if the customer requirements are met effectively.

6. Updated Project Backlog & User Stories:

Project Backlog:

1. The ability to answer queries regarding bank services and their benefits and compare similar plans
2. Ability to check account balance and various transaction histories of personal accounts
3. Ability to authenticate users before providing account information

Added User Stories:

1. Authentication:
 - Ask customer to login
 - Provide an OTP to verify

7. Next Steps:

The plan for the following two weeks is to create a minimum viable product with the above mentioned functionalities; to answer questions on bank services and procedures (up to a certain extent) and with the ability to query a database to provide information. This will require data collection, pre-processing before building and training the model.

A basic chatbot will be made for each of the languages Sinhala, Tamil and English using Rasa framework and other identified tools. We hope to integrate the ability of authenticating a customer and only providing the customer with data that he or she is allowed to access.