MojoText - Text Messenger

Shubham Chinchole, Rohan Saraf, Pradip Chaudhari
Students at Department of Computer Engineering,
MET's Institute of Engineering (Affiliated to Savitribai Phule Pune University), Nashik.

Abstract - *Short Message Service (SMS) is an integral service of the mobile phone for users to communicate with people which is faster and convenient way to communicate. However, it has some limitations like incapability of searching and categorization of SMS, scheduling, marking SMS and there is scope to improve it. To overcome various limitations, we have proposed a mobile application with title MojoText - Text Messenger which solves real time problems of text messaging. Our system provides core functionalities of text messaging and beside to that various facilities like categorization of messages based on personal, social, transactional and user defined categories with color codes, searching with customized date, scheduled text delivery, hiding of messages inside the app, reminders for due dates of billers, validity of texts, starred messages, pinned chats, signature, backup and recycle bin.*

Key Words*: *Text Messaging App, SMS, Messenger, Categorization, Android SMS App.

1. INTRODUCTION

Now a day, SMS is necessary part of every mobile user for communication, getting important alerts, banking OTPs etc. Beside of the basic functionalities there is scope to improve it. To overcome various limitations, we are developing an android application is going to enhance the use of SMS by people in their day to day life [1]. The user will avail all the facilities in the single application which would give him the ease of SMS and will make it comfortable to use it. Also, the various kind of new features are added to the application that will be helpful in removing the drawbacks faced in the current SMS applications in mobile devices [2].

- Short Message Service (SMS) is a text Messaging service component of a phone, Web, or mobile communication systems.
- SMS Application is an interface or the middleware between the human and message to communicate with each other.
- SMS Application can be helpful in customization and adding the various features with respect to the user interface
- SMS messages are thought to be more cost effective, swifter to deliver and more likely to receive a faster response than letters.
- Security, confidentiality, reliability and speed of SMS are among the most important guarantees industries such as financial services, energy and commodities trading, health care and enterprises demand in their mission-critical procedures [1].

1.1 Purpose

For different personal use or social use, SMS nowadays even being extinct, today the SMS is treated as the best way of authorization and authentication of the user's credential and contact information by using an OTP or any other activation methods. After the implementation of the android application, it will reduce the efforts of categorizing the SMS. The application will definitely be helpful in storing the messages and even in recovering if deleted by mistakenly. One of the major benefit the user will get in optimizing the memory i.e. after the validity of some SMS is expired it gets automatically deleted so space and efforts are saved.

2. LITERATURE SURVEY

The exhaustive literature survey consisting of the conceptual base for this project is briefly outlined here.

***Short Message Service (SMS)*:** SMS is growing in its applications. Not only banks and companies, but even Doctors, Libraries and many other service providers are using SMS as a direct communication media to customers. Promotion, marketing, delivery tracking and customer feedback of most of the service providers is based on SMS [1].

Mobile Chat: This is the most popular services over mobile phone networks. This paper intended to explore customer's intention to use Mobile Messaging Applications (MMA) in India. This indicates that Indian students use mobile messaging to express themselves, to pass the time and assortment of the services in MMA. Perceived usefulness also plays a significant role in student's intention to use MMA [2].

Voice SMS: It is an application developed in this work that allows a user to record and convert spoken messages into SMS text message. User can send messages to the entered phone number or the number of contact from the phonebook. The application is adapted to input messages in English. In this article we will give basic features of the speech recognition and used algorithm. Speech recognition for Voice SMS uses a technique based on hidden Markov models (HMM - Hidden Markov Model).

A. Existing systems

Following existing applications are available for the various feature on SMS but having the limitations to satisfy the users:

1) ***Evolve SMS***: This application has following features:
   - Multimedia support
   - Password protection
   - Sliding conversations
   - Privacy
2) ***8 SMS:*** This application has following features:
   - Stock Messages
   - Reply from popups
   - Clean Message

3. SYSTEM ARCHITECTURE

First of all, the SMS will be received by the mobile i.e. by the mobile application. For all the process to be happening the android application must be set as the default messaging application of the user. As soon as the message is received by the application the message is searched for the tokenization and being read for finding the particular keywords for finding its correct category. After this procedure the feature extraction procedure is being processed and on the basis of it the message is finally being categorized. Figure 1 shows diagrammatic representation of system architecture.

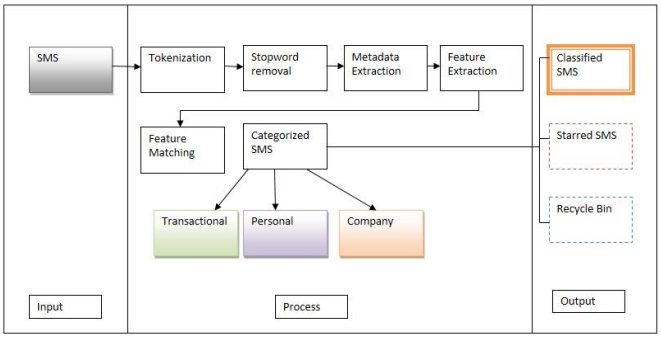

Figure 1: System Architecture

We have used pattern matching and keyword matching algorithms to categorize the SMS. Stop word removal is used to remove general words like “a”, “an”, “the” etc.

4. FEATURES OF APP

1) Replying messages from Notification Window. No need to open app every time.
2) Message search with customized time period. (User will define time period)
3) Messages will be categorized in four main by default categories viz. Social, Transactional, Promotional, User Defined Category.
4) Colour codes for each category.
5) Popping out due dates of various bills mentioned in the massage as a reminder to user.
6) Recycle bin to safely delete messages.
7) Starred message to identify and access important messages fast.
8) Pinned chats at the top of screen.
9) Scheduled of messages for various reasons like birthday messages.

5. FUTURE SCOPE

The Scope of the Project gets widened ever since the categorization of SMS’s is done. This will automatically gain the some of the features of various online messaging applications. The implementations of application will encourage the people to use it because they will be getting notified for their activities and transactions to be done.

6. RESULTS

As discussed in features of apps, we have implemented various features. Categorization is working successfully and having accuracy 90-95%. Starring of messages is working accurately and separate tab is showing list of starred messages. OTP validity feature is correctly working and OTP is counted and deleted by clicking a button. Customized search is working properly having accuracy 90-95% and considered all factors. Popping of due dates is working correctly for various date formats and remaining number of days is showing properly. Multiline signature is automatically added at the end of message.

7. SCREENSHOTS OF APPLICATION

In categorization of SMS, Figure 2 shows Service Category in which all kinds of Service related messages are categorized.

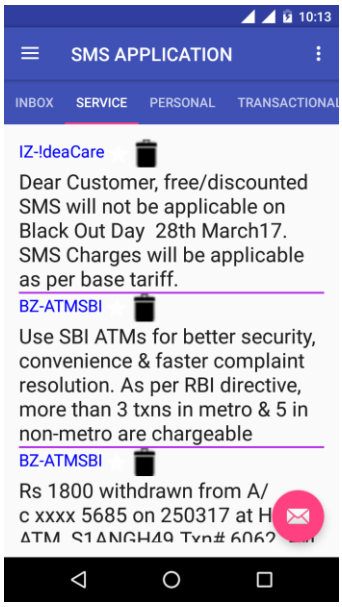

Figure 2: Service Category

To search the contents within application, Search function is used. Any specific keyword, contact number or name is used to get result. Figure 3 shows implemented search feature in application.

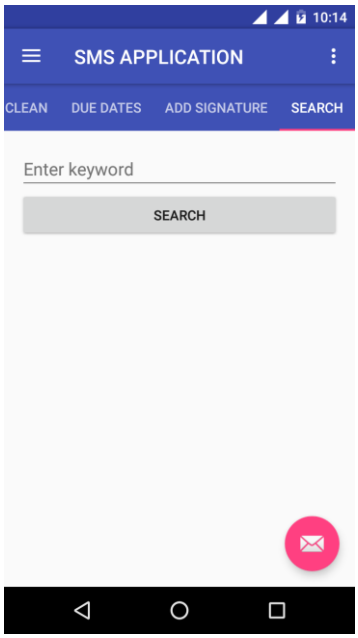

Figure 3: Search Feature

8. CONCLUSIONS

Our system is able to perform the core tasks of the text messaging application like sending and receiving text message. Along with this our application is solving the real-time problems occurred while managing text messages. Our proposed system provides a unique solution of categorizing the text messages based on various pre-defined and user-defined categories, which gives users a flexible option to organize messages. The Validity and Recycle Bin options give users a freedom to manage mobile memory efficiently. Overall, our proposed system is offering a complete solution to daily text messaging problems, which give users a wider experience

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