SPAM SMS DETECTION MOBILE APPLICATION

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Abstract

Short Message Service (SMS) is one of the basic, yet most significant means of communication in the modern world. Similar to all means of communication, the world of SMS communication is also prone to controversy. This brings us to the topic of spam SMS detection. This project is based on the filtration and detection of SMS spam.

Introduction

With trillions of SMSs being sent daily, SMS communication is widely utilized. The number of spam SMSs sent worldwide has shown an increase with respect to the increase in SMS utilization. This poses great risks for mobile phone users. The risks can be categorized into loss of data, invasion of privacy and the unauthorized access of personal/confidential information. The prevention of these is possible with spam SMS detection aided by machine learning.

Solution

Our application differs from other spam SMS detection software due to its utilization of machine learning to carry out the spam detection. Our methodology starts off with text preprocessing and tokenization on raw textual data. Then, the Bag of Words method is used for vectorization and feature extraction. 70% of this final data is used to train the classification model with the Naïve Bayes machine learning classifier. The trained model is then tested with the remaining 30% of the final data.
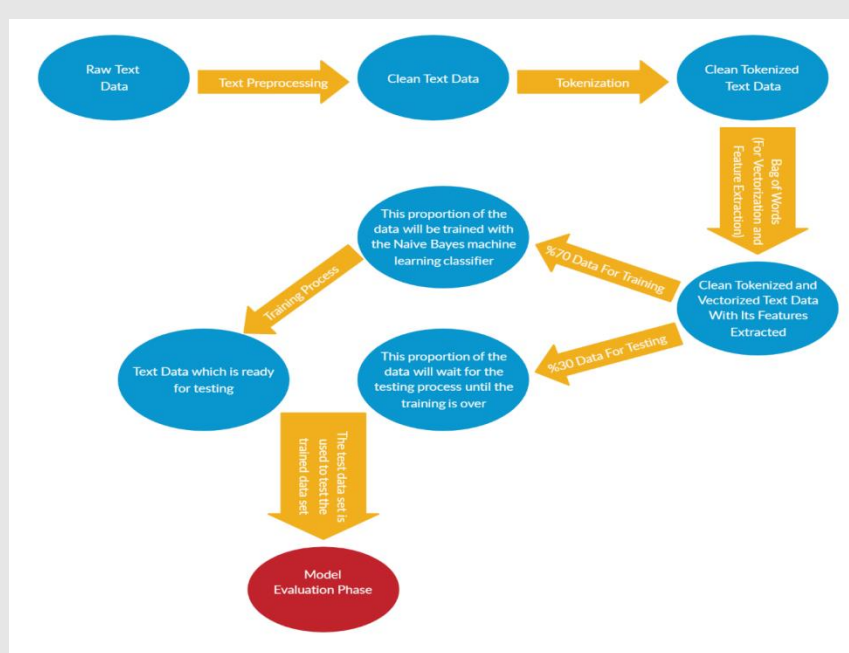

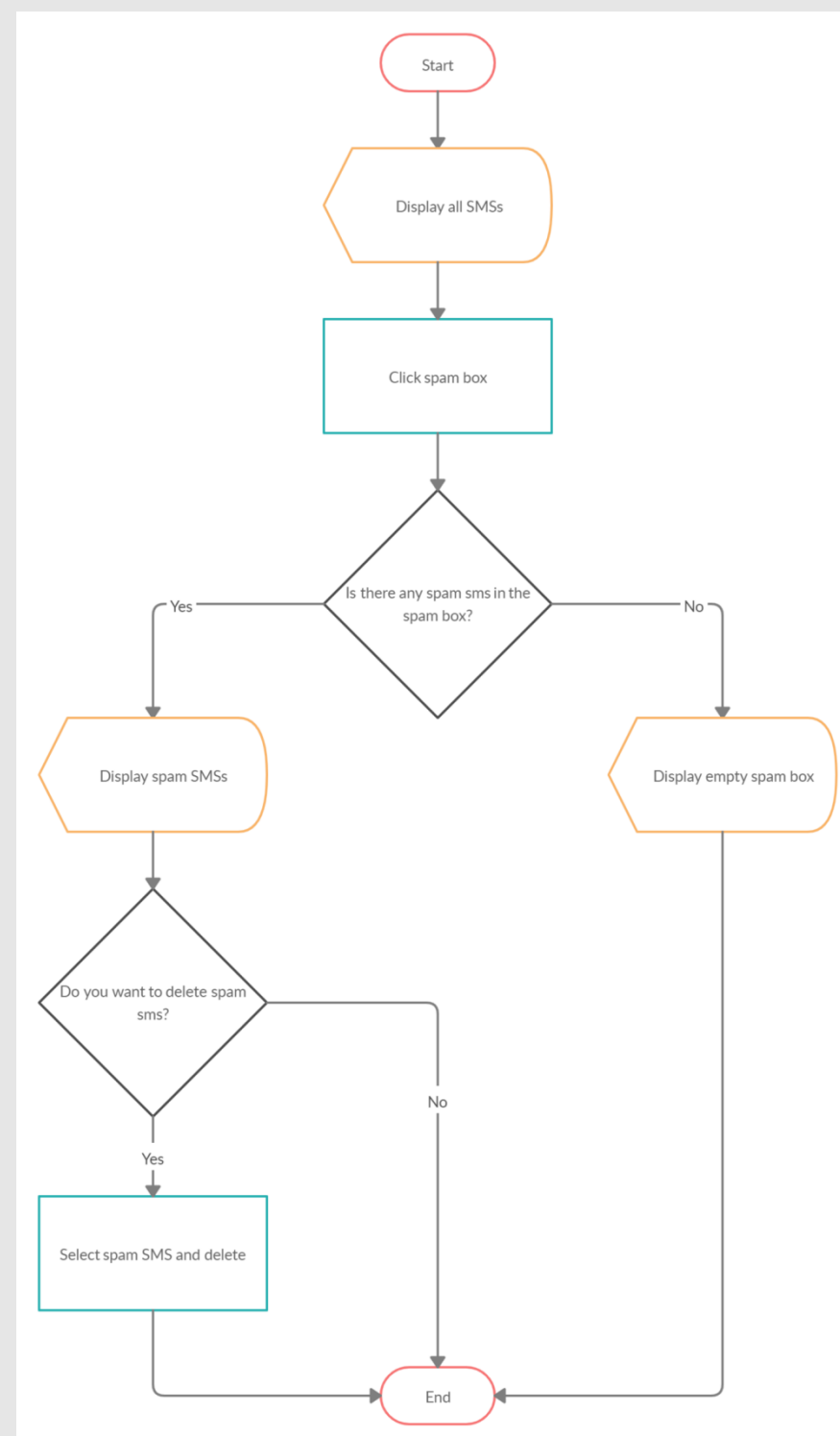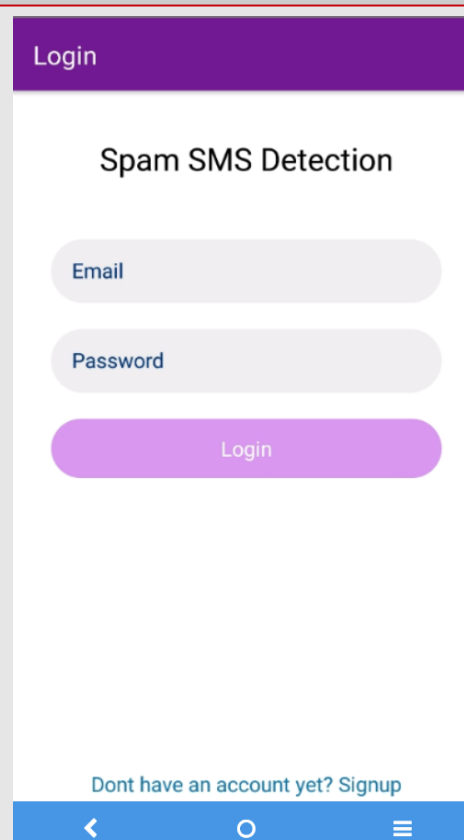**Figure 1 – Text Classification Model**

Figure 2 – Flowchart
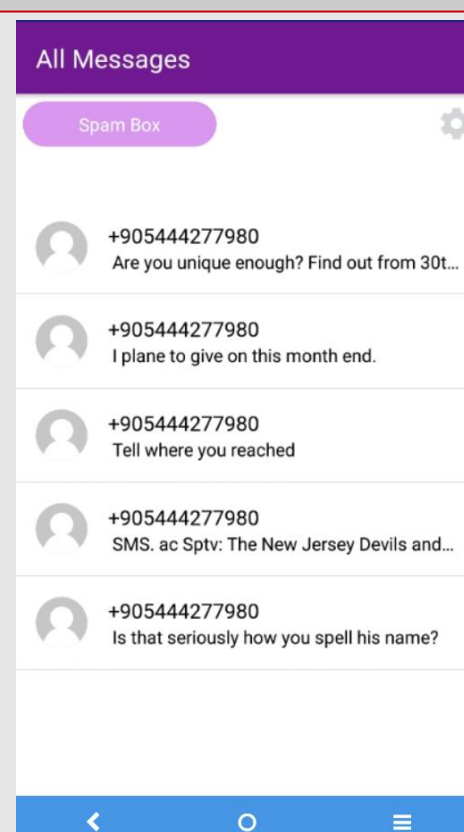

Figure 3 – Login Page

Figure 4 – Home Page
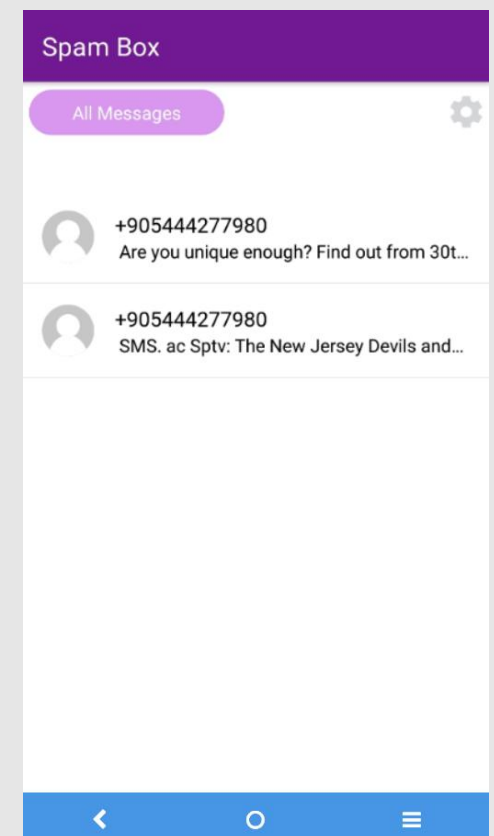
Results & Conclusion

Figure 5 – Spam Box Page

With the Spam SMS Detection Mobile Application , we are able to contribute to the world of telecommunication by providing English speaking societies with an application that protects them from SMS spammers with malicious intentions as well as aid them in their daily phone traffic with an SMS inbox which is much clearer and relevant with respect to their potential, if not specific, interests. In the future, we hope to further concentrate on the topic and come up with even brighter solutions which are responsive to the conflicts of the modern day telecommunication world. We wish everyone a spam-free text messaging experience!

Acknowledgement

After a year long of effort and hard work, we are elated conclude our project in a successful fashion. At this point, we would like to address our utmost gratitude to our advisor Dr. Instructor Roya CHOUPANI for so generously guiding us from day one and constantly helping us to improve both ourselves and our product.