

AN APPROACH FOR DETECTION OF FRAUD APPLICATION USING SENTIMENT ANALYSIS

Ayesha Sheikh*¹, Javeriya Tabassum*², Anam Syed*³, Benazir Sheikh*⁴, Anam Sheikh*⁵

*^{1,2,3,4,5}Students, Department Of Computer Science And Engineering, College Of Engineering And Technology, Nagpur, India.

ABSTRACT

In the present Situation everybody is utilizing advanced mobile phone. These days, there are various applications out there on play store because of that client can't consistently get right or genuine surveys. The wide spread of cell phones and applications into all circles of society has assisted with building up counterfeit applications among the present greatest network safety dangers. There are so numerous extortion applications are accessible in the web. Counterfeit conduct is generally famous in application stores like Google play store. The development of portable applications was expanded to 2.86 million at Google play store and makes the clients in a fluffly state while downloading the applications. There are numerous applications from which any application can be extortion, so the ID of genuine application is required. Misrepresentation applications fundamentally manages counterfeit applications. Thus, our framework will assist the client with recognizing which application is valid. In this paper we propose a technique to identify the misrepresentation application dependent on client audits and evaluations utilizing estimation investigation, The client surveys can be gathered from Google play store and order the audits into positive or negative by utilizing supposition examination. There are so numerous misrepresentation applications on the web. There are numerous applications from which any application can be extortion, so the distinguishing proof of genuine application is required. Our main target is to detect fraud app because there are huge no of mobile apps. So the main thing is to identify which app is fraud and here we analyze user comment and give rating based on that. Our fraud app detection application will help user to identify which application is genuine.

Keywords: Mobile Apps, Reviews, Ratings, Sentiment Analysis, Naive Bayes Classifier, NLP.

I. INTRODUCTION

The mobile applications are increasing in day by day. Different types of apps can be used in mobile phones. These kinds of apps can be downloaded freely in Google play store and the apps have no cost. In Google play store all apps are not original. They introduce some fake apps the user cannot identify the fake app. Now a day's fake app is increasing in Google play store and it is launched with the popular names which cause major challenges in current scenario. Some fraudulent developers deceptively boost the search rank and popularity of their app. We came with an idea where a mobile application with java along with the sentimental analysis is used to process the rank and comment given by the user where the comment percentage and rate percentage accuracy automatically maintained and a graph which shows the app range is created. Nowadays, there are so many applications available on internet because of that user cannot always get correct or true reviews about the apps on internet. In this project, we propose the system by developing application which help to detect fraud apps using sentiment comments and data mining. Transparency. We can check for client's nostalgic remarks on different application. The audits might be phony or real. So we are proposing a framework to foster an application that will take surveys from clients, and investigate them for positive negative rating. For each client surveys and remarks will be gotten independently and broke down for positive negative rating. At that point their rating/remarks will be judged and it is not difficult to anticipate the application as Certifiable or Misrepresentation. In Survey Based Confirmations, other than evaluations, the majority of the Application stores additionally permit clients to keep in touch for certain text based remarks as Application audits. Such audits can mirror the individual insights and utilization encounters of existing clients for specific portable Applications. Undoubtedly, audit control is one of the pole significant viewpoint of Application positioning extortion.

II. METHODOLOGY

For fostering the framework certain strategies are utilized. The philosophy used in this task is grouping of applications utilizing Innocent Bayes calculation. With the extension inside the amount of web Applications, to

separate the distortion of Applications, this endeavor proposes a simple and effective structure. Fig.1 shows the System of Misrepresentation identification in convenient application. Here we propose a framework which includes in recognizing the extortion applications utilizing feeling remarks and information handling. By investigating these remarks, we are prepared to recognize them as certain or negative remarks. With the combination of those confirmations we get the upper likelihood. There are a few stages inside the proposed framework:

- a) Gathering the different application audits dataset
- b) Information preprocessing
- c) Applying Credulous Bayes calculation and score computation Present we examine about these in momentarily.

A. Gathering the different application audits dataset: We have gathered Google play store dataset from the open sources like, Google public datasets at that point on. The dataset contains the surveys for different application class like Social, Games, Schooling, Account, News, Food.

B. Information Preprocessing: This progression includes the handling of client surveys for expulsion of undesirable content.

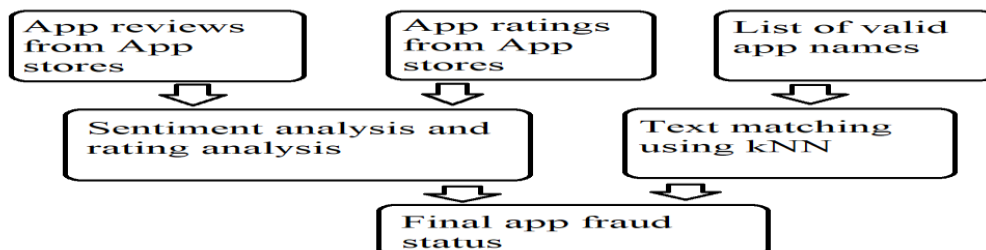
1. Tokenization: Tokenization is that the demonstration of finishing a grouping of strings into pieces like words, phrases, images or significant components called as tokens. The rundown of tokens gets contribution for additional interaction like parsing and text mining.

2. Stop word expulsion: In NLP, futile words are alluded as stop words. A stop words might be a regularly utilized word, for example, a, the, and, for, from, is, in and loads of more, that an enquiry motor has been modified to disregard.

3. Stemming: Stemming calculation is utilized to search out the base word. Stemming is the cycle of decreasing a word to its promise stem that appends to additions and prefixes or to the foundations of words known as lemma. Doorman Stemmer Calculation is utilized to discover base word.

III. MODELING AND ANALYSIS

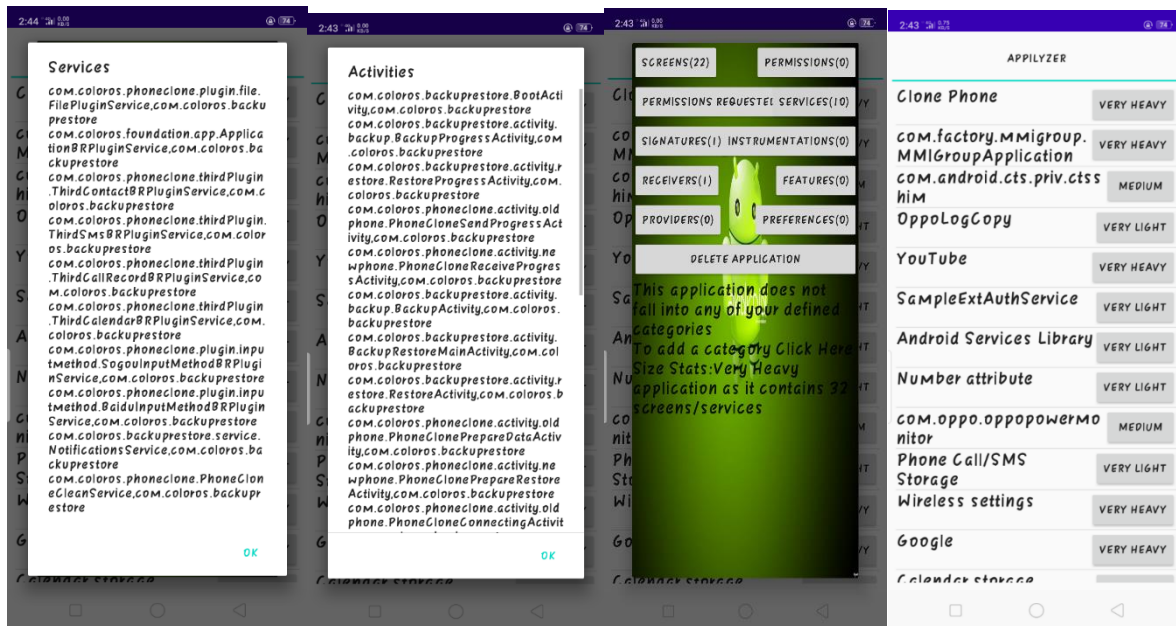
The main objective of this application was to review fraud detection of apps and to use sentiment analysis approach to differentiate the particular fraud apps. The experimental analysis is carried on differing types of apps with the proposed method for detection of fraud apps. Our system will detect the ranking frauds supported three sorts of evidences, like ranking based evidences, rating based evidences and review based evidences. The existing technique integrate the results of various evidence is to find genuineness of an app. We again integrate a recommender system and the rankings score generated previously such that, the recommender system will recommend the most genuine app that are most relevant. The apps suggested by recommender system will be checked for whose score is high and the app with highest score will be suggested. With the expansion in the quantity of web applications to identify the fake applications.. We have a propose a sentimental analysis, which identifies the leading sessions of each app based on its historical ranking of records audit-based confirmation is utilized to check the survey of the application. By using this application, user can also be able to give their feedback by commenting views on that application.



IV. RESULTS AND DISCUSSION

Our framework will recognize the positioning fakes upheld three kinds of confirmations, such as positioning based confirmations, rating based confirmations and survey based confirmations. The current strategy coordinate the consequences of different proof is to discover validity of an application. We again incorporate a

recommender framework and the rankings score produced beforehand to such an extent that, the recommender framework will suggest the most veritable application that are generally significant. The applications proposed by recommender framework will be checked for whose score is high and the application with most elevated score will be recommended. With the increment in the quantity of web applications to distinguish the fake applications. We have propose a nostalgic investigation, which distinguishes the main meetings of each application dependent on its authentic positioning of records review based affirmation is used to check the study of the application. Subsequent to utilizing the application, client can give their input by remarking his/her perspectives on that application. Can see the chose application's subtleties, evaluations and remarks.



V. CONCLUSION

The mobile applications are increasing in day by day. Different types of apps can be used in mobile phones. These kinds of apps can be downloaded freely in Google play store and the apps have no cost. In Google play store all apps are not original. Positioning extortion in the versatile application market alludes to false or tricky exercises which have a motivation behind knocking up the applications in the ubiquity list. Now a day's fake app is increasing in Google play store and it is launched with the popular names which cause major challenges in current scenario. Some fraudulent developers deceptively boost the search rank and popularity of their app. We came with an idea where a mobile application with java along with the sentimental analysis is used to process the rank and comment given by the user where the comment percentage and rate percentage accuracy automatically maintained and a graph which shows the app range is created. This application not only suggests but also provides security to the user in a better way.

ACKNOWLEDGEMENT

We might want to communicate a profound feeling of appreciation to our Undertaking Aide, Prof. Manish Assudani, Department of Computer Science & Engineering, for being the cornerstone of our project. It was their incessant motivation and guidance during periods of doubts and uncertainties that have helped us to carry on with this project. The necessary guidance, support, motivation, and inspiration without which this project would not have been possible. Last but not the least, special thanks to our family members, friends, and colleagues for their continuous support.

VI. REFERENCES

- [1] Investigating Fraudulent Acfi, UNIVERSITY OF HOUSTON SYSTEM ADMINSTRATNE MEMOH!ANDUM. <http://www.uhsa.uh.edu/samiAM/01C04.hhll>, 2000.
- [2] E. Aleskerov, B. Freisleben, and B. Rao. Card watch a neural network based database mining system for credit card fraud detection. In Pleadings of Computational Intelligence for Financial Engineering, pages 173-200,1997,

- [3] D. Anderson, T. Frivol, A. Tamaru, and A. Valdes. Next generation intrusion detection expert system (nodes), software users manual, beta-update release. Technical Report SRIXSL-9547, Computer Science Laboratory, SRI International, 333 Ravenswood Avenue, Menlo Park, CA 94025- 3493, May 1994.
- [4] S. Axels son. Research in intrusion-detection systems: A survey. Technical Report 98-17, Department of Computer Engineering, Chalmers University of Technology, Goteborg, Sweden, Dec 1998.
- [5] <https://developer.android.com/reference/android/content/pm/PackageManager>
- [6] <https://stackoverflow.com/questions/2695746/how-to-get-a-list-of-installed-android-applications-and-pick-one>
run#:~:text=You%20can%20Find%20the%20List,intent)%2C%20can%20start%20application
- [7] <https://devofandroid.blogspot.com/2018/02/get-list-of-user-installed-apps-with.html>