

Fake News Verifier: An Application Which Verifies The Fact About News

Deep Shah¹, Tirth Patel², Prof. Ajaykumar T. Shah³

^{1,2}Dept of Computer Engineering

³Head of the Department, Dept of Computer engineering

^{1,2,3} Alpha College of Engineering and Technology

Abstract- The goal of this project is to design the app which helps the WhatsApp users to verify the fake messages/news and user can also report for fake messages through this app. User can also check the number of reports on a particular message. While reporting a message user can also comment the reason down why he/she agree that's the message is fake. The list of spam messages can be seen on the Homepage, even the user can also check that the message is real with a reason in the comment.

Keywords- Fake News, Fact Check, Verification

I. INTRODUCTION

Project is based on the viral fake messages which are to be fact check and let the user to know about the reality of that messages whether they are fake or true. App will provide the functionality to check the message which was forwarded by someone and it may not be true, so user can check that message by using this app and will get list of the articles related to that message. The articles are shown on the app are verified and fact checked by google which will give the accurate results of that message with proper valid reason. The major was to find the truth of the message which will be provided by our app in short period of time. The app will also provide the history of messages which were searched using our app.

ANDROID

Android is a mobile operating system developed by Google, built on the Linux kernel and designed specifically for mobile touch screen devices such as smartphones and tablets. Android user interface is mostly based on direct manipulation, using touch signals that equate loosely to real-world acts, such as swiping, clicking and pinching, to manipulate on-screen objects along with virtual keyboard for text input.

In addition to touch screen smartphones, Google has further created Android TV for televisions, Android watch wear, each with a specialised user interface. It is also found in other computer devices. Android has the highest user base of any

kind of operating system. Android has been the best-selling OS on laptops since 2013, and it dominates every measure on smartphones. Initially it was developed by Android, Inc., which Google bought in 2005.

Professional developers see android as their primary target platform, which is equivalent to Apple's iOS. Android source code is published by Google under an open source licence, but most Android devices eventually ship with a mixture of free and open source and proprietary applications, including proprietary software used to access Google services. Android is popular with technology businesses that need a ready-made, low-cost and scalable high-tech operating system. Its open design inspired a wide group of developers to use open source code as a base for community-driven projects. Android's popularity has made it a patent lawsuit priority as part of the so-called mobile wars between technology firms.



Figure-1 Android Architecture

II. LITERATURE REVIEW

- Fake news detection can be done by using different techniques like using Machine Learning algorithms, Deep Learning methods, and other such techniques. For the detection of fake news, the dataset must be prepared by collecting the data accurately and then preprocessing the dataset and applying the required data mining algorithms.
- They used web scraping techniques to extract a large amount of data. Naive Bayes classifier was applied over the dataset obtained by first considering only the titles of the news articles and then by considering the entire article and the results were analyzed. On analysis, the results obtained by using the entire news article were better than that by considering only the news titles. A.Lakshmanarao, Y.Swathi, T. Srinivasa Ravi Kiran performed an analysis on a dataset by

applying different machine learning algorithms namely Support Vector Machine, Decision Tree classification, K-Nearest Neighbor, Random Forest classification algorithms

- We have studied the types of fake news. They have described the data which is circulated as fake news. It can be visual-based, user-based, knowledge-based, style-based, or even stance based. Before detecting the fake news we have to understand how the fake news is created. It may be a written article, an image, video, audio, etc. It should also be studied that among these, which one is used the most for the fake news and made viral.
- The authors studied that the fake news articles and spam messages have similar properties of grammatical mistakes, they use similar and limited amounts of words and are often emotionally manipulative. The dataset was processed and filtered and shuffled, which was divided into three subsets namely, training dataset, validation dataset, and test dataset. They used Naive Bayes Classifier for detection using the prepared dataset. The results obtained were not significant. They concluded some ways to improve accuracy by increasing the size of the dataset and using news articles having a longer length.

III. TECHNOLOGY

The Fake News Verifier software is developed for AndroidOS systems and is designed to use the Android system. We've introduced an Android Studio programme that functions as an Android IDE. As we know, Android is a java-based platform that uses XML for frontend creation.

We used terms such as fragments, display pagers, floating action keys, menu, splash screen, etc. We used Firebase Server to enable authentication and speak. Firebase is a smartphone and web application development software founded by Firebase, Inc. in 2011, and acquired by Google in 2014.

As of October 2018, the Firebase platform has 18 products, which are used by 1.5 million apps.

Firebase provides us with a strong method, Firebase Authentication is the most reliable authentication on all servers, such as Php, Django. It gives us the idea of using Google Authentication, Email Verification, OTP-based Mobile Authentication, and many more. Chat service is

provided using the Realtime Database and the database storage to submit pictures.

IV. STUDIES AND FINDINGS

Current scheme The user must find the right article to validate the message and the user is still not happy with the findings since the end of the message is not seen. Many of the pages to be used for posts are actually verified, which consumes more time.

- Some applications are on online store but they did not provide the valid reason to believe on that article as they are not verified.
- Some third party application for online search of articles just google it the message but results are not accurate.
- Some user don't use the third party application because they are very expensive to buy.

V. SYSTEM DESIGN

1) Flow Chart

The flowchart is a means of visually presenting the flow of data through an information processing systems, the operations performed within the system and the sequence in which they are performed.

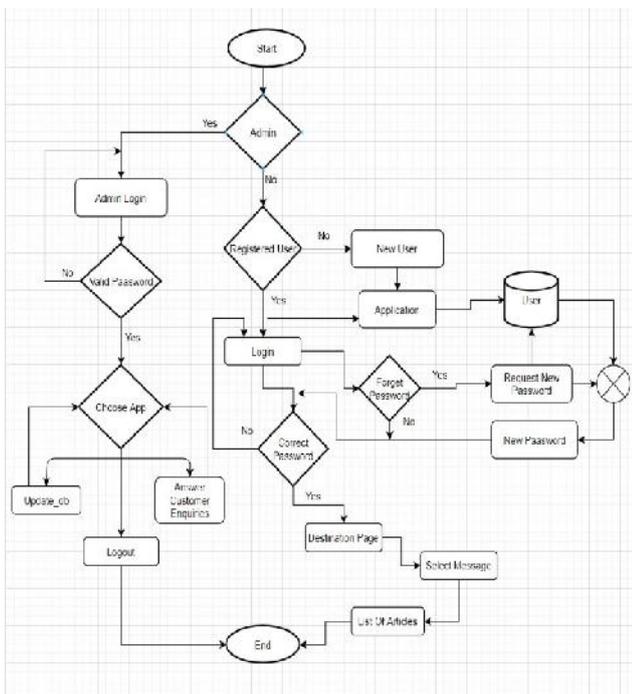


Figure-2 Flow Chart

2) Activity Diagram

An activity diagram is a visual representation of the "flow" of data through an information system, modelling its operation aspects. Activity diagrams are schematic representations of step-by-step workflows and behavior supported by choice, iteration and concurrency. In the Unified Modeling Language, activity diagrams can be used to describe the business and operational step-by-step workflows of components in a system. An activity diagram shows the overall flow of control.

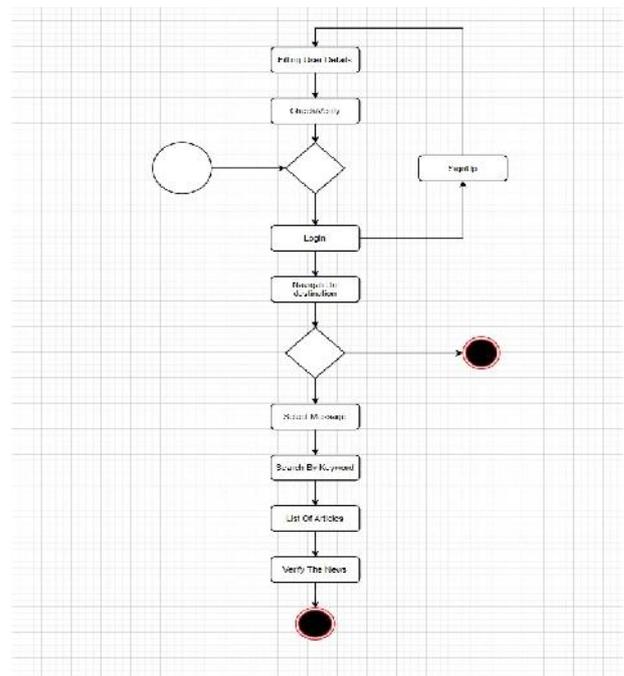


Figure-3 Activity Diagram

3) E-R Diagram

In the field of software engineering, an entity-relationship model (ER model) is a data model for representing the data or knowledge elements of a business area or its process specifications in an abstract manner that ends up being applied in a database such as a relational database. The key components of the ER models are individuals and interactions that could occur between them and databases. An entity-relationship model is a formal way to describe and define a business process.

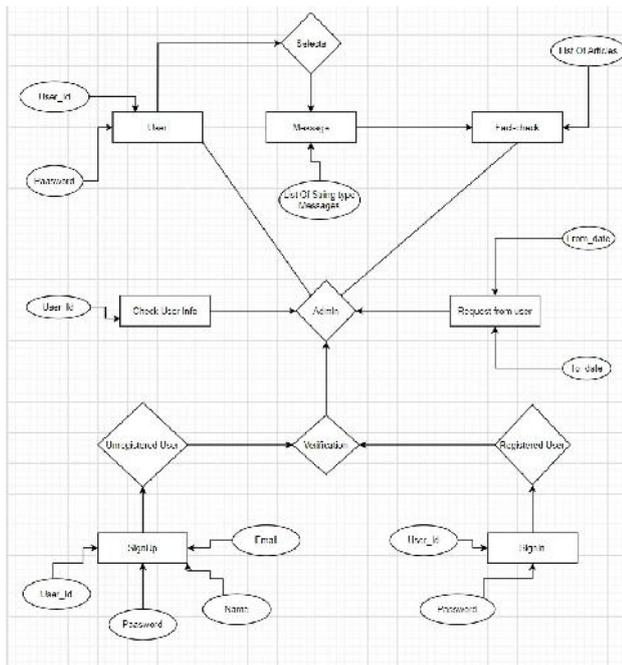


Figure-4 Entity-Relationship Diagram

VII. CONCLUSION

Main goal of fake news verifier is to reduce the amount of fake messages which are getting viral now a days and can be harmful to someone as anyone can send the message of any type because there are no guidelines for messages. To aware the people for not to forward fake messages we are developing this app. In real world the number of fake news/messages are increasing daily so to decrease it we will be creating this app, Where the user can verify the message which they seemed to be fake. The key thing of app is the user don't have to switch to the other app for verifying the news, it will be displayed on the WhatsApp only using overlay functionality.

VIII. ACKNOWLEDGMENT

We express our sincere thanks to Prof. Ajaykumar T. Shah Head of Department of Computer Engineering, Alpha College of Engineering and Technology for their Support and guidance for this project and care taken by them in helping us to complete the project work successfully.

REFERENCES

[1] Kai Shuy, Amy Slivaz, SuhangWangy, JilianTang,and Huan Liu, "Fake News Detection on Social Media: A Data Mining Perspective", 2016.

[2] Hunt Allcott and Matthew Gentzkow, "Social media and fake news in the 2016 election" Technical report, National Bureau of Economic Research, 2017.

[3] Fake News Detection Using Machine Learning approaches: A systematic Review, Syed Ishfaq Manzoor, Dr Jimmy Singla, Nikita, Proceedings of the Third International Conference on Trends in Electronics and Informatics (ICOEI 2019).

[4] A smart system for fake news detection using machine learning, Anjali Jain, Avinash Shakya, Harsh Katter, Amit Kumar Gupta, 2019 IEEE 2nd International conference on ICICT.

[5] Media-Rich Fake News Detection: A Survey, Shivam B. Parikh and Pradeep K. Atrey, 2018 IEEE Conference on Multimedia Information Processing and Retrieval.

[6] Google Developer Console <https://console.developers.google.com/>

[7] Fact Check Claim Review Guide <https://developers.google.com/search/docs/data-types/factcheck>