SECURE ANDROID NOTES USING FINGERPRINT AUTHENTICATION

K. VENKATESWARLU, Asst. Professor, *Department of Master of Computer Applications, Narayana Engineering College(Autonomous), Gudur.SPSR Nellore, AP*
L. SAILAJA PG Scholar, *Department of Master of Computer Applications, Narayana Engineering College(Autonomous), Gudur.SPSR Nellore, AP*

Abstract – This System is a smart application used to secure notes via Finger Print Authentication. This System can also be referred as Keyless Authentication unlike traditional way where it needed a password to enter. This System doesn't have any Registration but only the owner of the phone can access these notes as it searches for the owners print. This System can be used as private notes or personal diary or important notes; can be given multiple names but plays a similar role of recording notes and keeping it away from everyone then the phones owner. If there is no Biometric feature on the phone, this app can't be used. The user can add new notes, edit old notes as well as delete notes. The Front end used is Android Studio and the Back end used is SQLite. Biometric Authentication is the highest level of security any Phone can offer making it very accurate and very secure.
Index terms – Fingerprint Authentication, Security, Android Notes.

I. INTRODUCTION

Biometrics is body measurements and calculations related to human characteristics. Biometric authentication (or realistic authentication) is used in computer science as a form of identification and access control. It is also used to identify individuals in groups that are under surveillance. Biometric identifiers are the distinctive, measurable characteristics used to label and describe individuals. Biometric identifiers are often categorized as physiological characteristics, which are related to the shape of the body.

In current system, smartphone enabled notes app are available in Google Play store. These apps allows user to create notes with sensitive information like passwords, bank Account details, locker details and so on. This system useful to store the all kind of text data and carry the data without any additional burden.

In the proposed system, we using fingerprint based authentication system to protect the android Notes app. Using Fingerprint authentication we can access this application efficient. In this application we can store the personal details, passwords, important notes and so on.

The main advantages of the proposed system are:
- ✓ No Internet Needed.
- ✓ Only the owner can access the notes.
- ✓ No Limit in number of notes.
- ✓ No Registration.

II. LITERATURE SURVEY

More traditional means of access control include token-based identification systems, such as a driver's license or passport, and knowledge-based identification systems, such as a password or personal identification number. Since biometric identifiers are unique to individuals, they are more reliable in verifying identity than token and knowledge-based methods; however, the collection of biometric identifiers raises privacy concerns about the ultimate use of this information.

Many different aspects of human physiology, chemistry or behavior can be used for biometric authentication. The selection of a particular biometric for use in a specific application involves a

weighting of several factors. Jain et al. (1999) identified seven such factors to be used when assessing the suitability of any trait for use in biometric authentication.

- Universality means that every person using a system should possess the trait.
- Uniqueness means the trait should be sufficiently different for individuals in the relevant population such that they can be distinguished from one another.
- Permanence relates to the manner in which a trait varies over time. More specifically, a trait with 'good' permanence will be reasonably invariant over time with respect to the specific matching algorithm.
- Measurability (collectability) relates to the ease of acquisition or measurement of the trait. In addition, acquired data should be in a form that permits subsequent processing and extraction of the relevant feature sets.
- Performance relates to the accuracy, speed, and robustness of technology used (see performance section for more details).
- Acceptability relates to how well individuals in the relevant population accept the technology such that they are willing to have their biometric trait captured and assessed.
- Circumvention relates to the ease with which a trait might be imitated using an artifact or substitute.

Proper biometric use is very application dependent. Certain biometrics will be better than others based on the required levels of convenience and security. No single biometric will meet all the requirements of every possible application.

III.PROPOSED METHOD
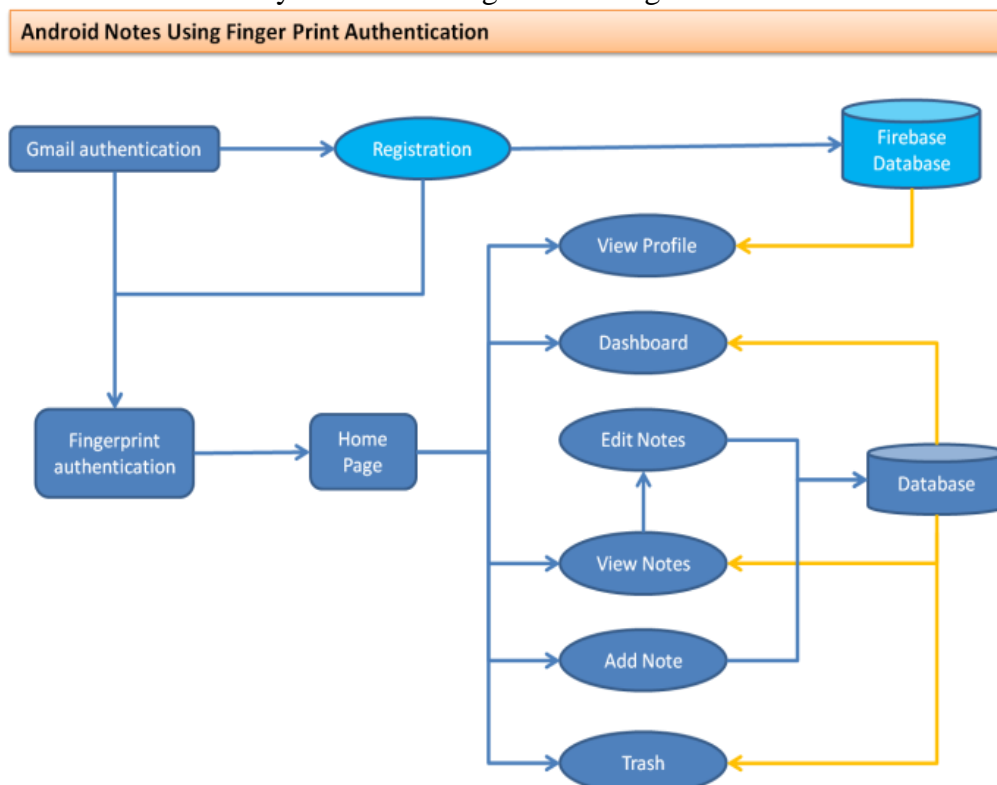The overview of the system is showing in below figure

Fig. 1: Proposed System

The main objectives of the proposed system are:

o This System is a smart application used to secure notes via Finger Print Authentication.
o This System doesn't have any Registration but only the owner of the phone can access these notes as it searches for the owners finger print.
o This System can be used as private notes or personal diary or important notes; can be given multiple names but plays a similar role of recording notes and keeping it away from everyone then the phones owner. If there is no Biometric feature on the phone, this app can't be used.

Implementation Modules

User Module

◯ In this module, user can register and login to the system. He can verified fingerprint when login to the system.
◯ Here, he can Manage the android notes which contain sensitive Information.
◯ He can view the profile information, view the Dashboard information.

Fingerprint Authentication

◯ In this module, we study the Behavioral biometrics related to the measure of uniquely identifying and measurable patterns in human activities. The term contrasts with physical biometrics, which involves innate human characteristics such as fingerprints or iris patterns.
◯ Based on this we implementing fingerprint authentication system to efficiently and securely to protect the Android Notes which contain personal Information such as password, back account information and so on in Smartphones.

Android Notes

◯ In this modules, User can perform the following operations:
◯ **Add Notes:** The user can add new notes.
◯ **Edit Notes**: The user can edit old notes.
◯ **Delete Notes:** The user can delete notes.
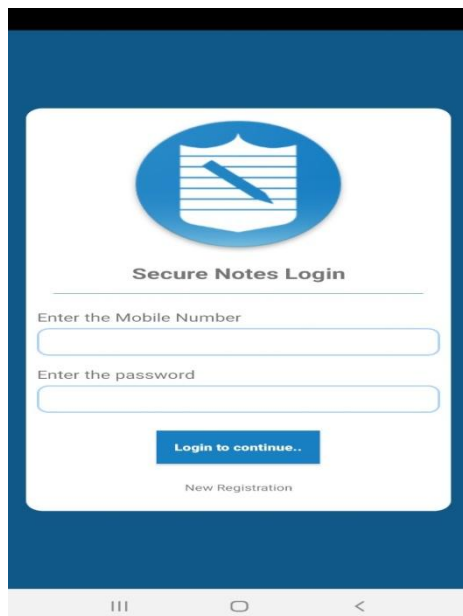
IV. RESULTS
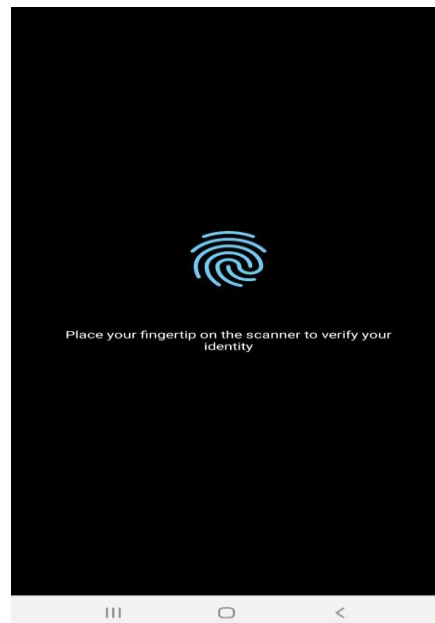

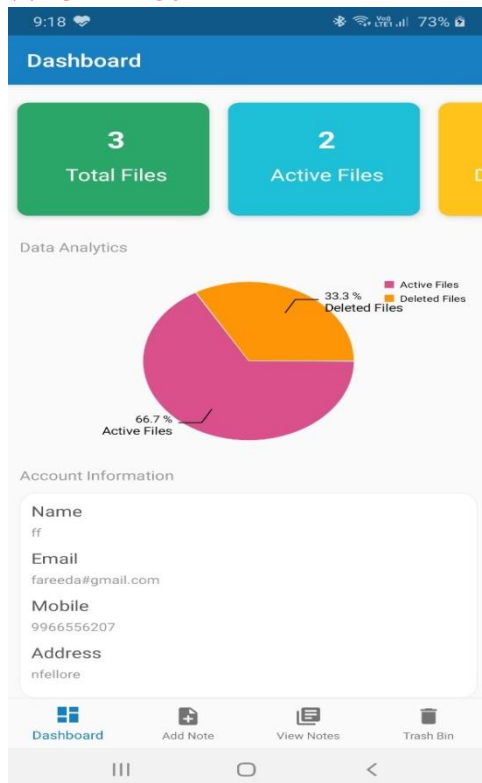Fig. 2: Login Page   Fig. 3: Fingerprint Authentication Page
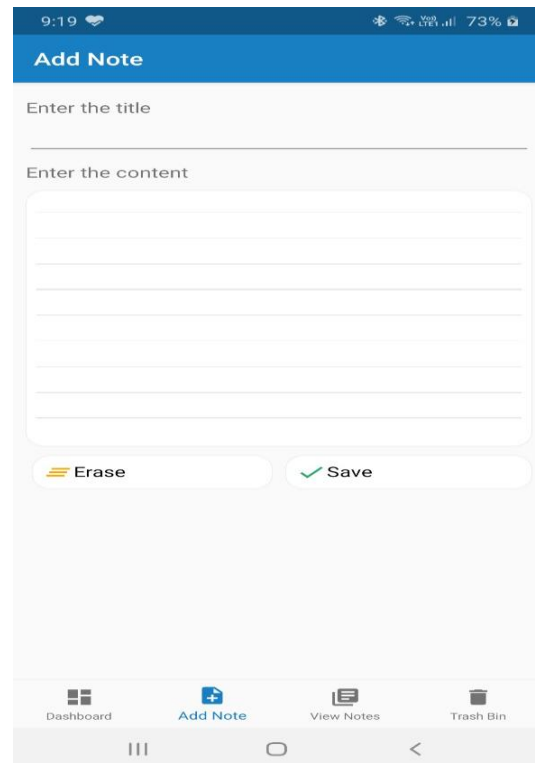
Fig. 4: Dashboard Page

Fig. 5: Add Android Notes

V. CONCLUSION

In this project we implemented secure android notes using fingerprint authentication in which user is able to create, edit and delete the notes in smart phones. This android notes application useful mobile users to securely save important information such as bank account details, passwords, locker numbers and so on. This application allows users to manage the notes information efficiently.

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