MOBILE BASED FILE LOCKER SYSTEM WITH INTRUDER DETECTION

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Abstract - *Android Smart phones have gained immense popularity over the years and is undoubtedly more popular than other operating system phones. So majority of the users save their files in the mobile phone, which leads to security issues since anyone can see our sensitive files. This problem can be solved by using file locker. File locking is a mechanism that restricts access to a file, or to a region of a file, by allowing only one user to modify or delete it and to prevent unauthorized access by setting a password. Proposed system presents a more secure approach for file protection. This project is about a mobile file locker which is cleverly disguised as "Clock" in the App drawer, so no one knows it's a file locker. It can also be used normal clock with features like stop watch, timer, alarm. It can be used to hide photos, videos, documents in your phone free and unlimited. We can also find the intruders using face detection, if anyone enters a wrong password an automatic message notification will be sent to the registered mobile number. And there is a fake locker, which is used to save dummy contents, so nobody knows about the original files in the locker. It has a easy to use UI.*

***Key Words*: File Locker, Clock, Safety, Intruder Detection**

1.INTRODUCTION

We present a system by which users can store their files safe and secure without anyone knowing about the files .When a user enters the application it looks like a normal clock with options like stopwatch, timer, alarm. If the user goes to the alarm setting then click set alarm tone, only one certain alarm tone will go into the file locker other tones can be used for normal alarms. If that certain tone is kept and ok button is clicked then it will ask for the password, If the password is correct, it will enter into the file locker, if the password is wrong, an automatic message notification will be sent to the registered mobile number. The user has to set password and recovery mail when we enter for the first time. If the password is entered wrong for 7 times it will ask for password recovery question and send the password to the recovery mail. After entering into file locker one can choose which files the user want to hide, and can sort the files into folders for easy recognition.

2. LITERATURE SURVEY

(i) Title: Secret lock – Anti theft: Integration of app locker & detection of theft using user pattern

Author: Kavitha, KongaraDevipriya, SivaSankari, Deepa

Year:2017

Description:

This paper presents the various methods to secure or lock the mobile using user authentication. User will add multiple apps into the application for the secured access. At the time of registration, this application can frame a group of normal queries along with the user runtime verification as per the planned system.

(ii) Title: Folder Lock by Using Multimodal Biometric: Fingerprint and Signature Authentication

Author: Norhaiza Bt Ya Abdullah, Herny Ramadhani Bt Mohd Husny Hamid

Year:2015

Description: This paper proposed a system to overcome the problem that is caused because password authentication method as a keyword permission to access something is breakable, hence, it can be leaked out and cracked by using any methods such as dictionary attack, or social engineering. So by adding multimodal biometric authentication will provide another layer of security. Those problems encountered have being overcome and it is proven that by adding another layer of security as the authentication is more secure. It has been proved and has been tested that using combination of two biometric methods, fingerprint and signature as an authentication method is more secure and reliable.

(iii) Title: An efficient approach to securing user data in android

Author: Suranya Jayan, Jiangfeng Sun, Dongwan Shin

Year:2017

Description: This paper investigate how applications store such information, the existing security features in Android that secure this information, and the known issues associated with these security measures. The results of the study show that a majority of applications store user information on the device in an insecure form. However, the existing Android architecture is not enough to address the security and privacy concerns associated with this. Hence, the framework which supports applications in storing user information securely and efficiently in an encrypted form on the device.

3. EXISTING SYSTEM

There are some existing file lockers in the android platform but those file lockers only offers to protect the file. They lack features like disguising option so, everyone can easily find out that the user has file locker, which is a big disadvantage. Then most of the file lockers in the play store needs micro transactions to use its additional features. The UI of the existing file lockers are little complex to use, so not everyone can understand easily.

4. PROPOSED SYSTEM

This app locker is cleverly disguised as "Clock", so anyone trying to open the app will think it's a normal clock and they don't know it's a file locker. It has intruder detection, if anyone enters wrong password, an automatic message notification will be sent to the registered mobile number. There is fake locker, which is used when a close friend or family member found about the app locker and forces us to enter, it shows fake content so nobody knows about the original files. Another advantage is that its fully free to use whereas other app locker features are mostly paid, then the income will be generated through Ads in play store. It has easy to use UI

5. SYSTEM DESIGN

5.1 Clock Module

In this module Mobile clock, stop watch and world clock functionalities are developed. The front end of the application which is user interface is developed using the extensible markup language. And the back end of the application which is working of all the functions like buttons is developed using java. This module can introduce into our application.

5.2 Alarm Module

Alarm module gets the input from the user as alarm tones. If the given alarm tone is correct, it will enter into the password module. If any other ringtone is selected it will be set as a normal alarm and won't advance into password module.

5.3 Password Module

The output from the alarm module is given as input to the password module. Password module is used to set password and enter the file locker. If the password entered is wrong it will go into the intruder's module. If the password entered is correct it will advance into the file locker module. If the password entered is wrong for seven times it will go into the notification module. It connects the clock module, Intruders module, file manager module.

5.4 File Locker Module

File Locker Module gets input from password module. If the password is correct then it will go into the file locker module. In file locker module we can securely save all the files in this module. And we can sort these files into folders for easy recognition in this module. Dummy locker is also designed in this module.

5.5 Intruder's Module

This module gets input from password module, If the password is entered wrong in password module then it will go into the intruder's module, In the intruders module, an automatic message notification will be sent to the registered mobile number.

6. WORKING PRINCIPLE

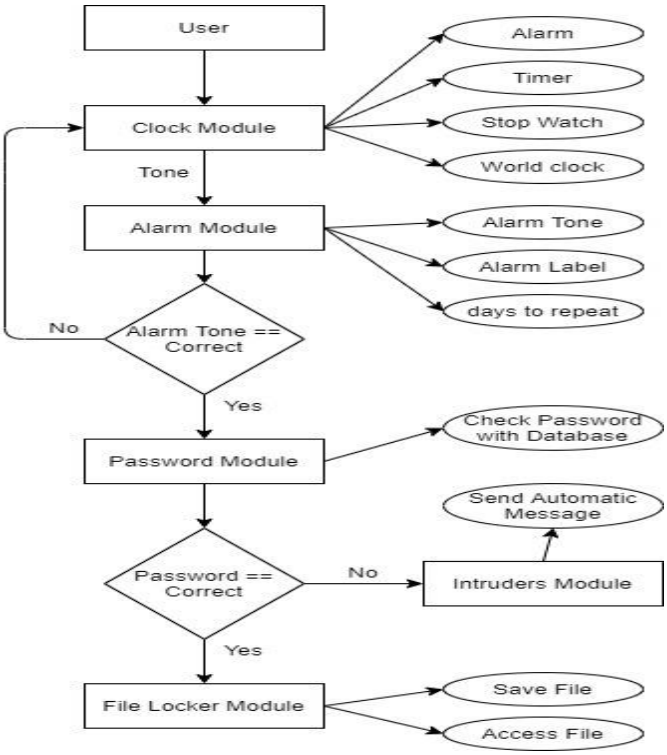

Fig 6:Data Flow Diagram

The frontend of the file locker, which is user interface is developed using Extensible Markup Language. The backend which is working of buttons, page navigation are developed using Java. SQL Lite is used as storage database. Each page is developed as a fragment, which is a piece of activity. It is used to develop in an advanced level. The clock functionalities are developed using a predefined class, functions in java. If we keep that certain alarm tone and click ok then it checks with the predefined tone stored in database, if that tone match we can go into the password fragment otherwise it will be set as a normal tone. In password page, when we enter the password it verifies with the sql lite database, If the password is current it will enter into the file locker. If it is wrong, an automatic message is sent to the registered mobile number using sms.send Text Message function in Java. In File Locker the files are stored and accessed in SQL Lite Database using SQL Lite Open helper class in java. These files are saved in mobile internal storage

7. OUTPUT

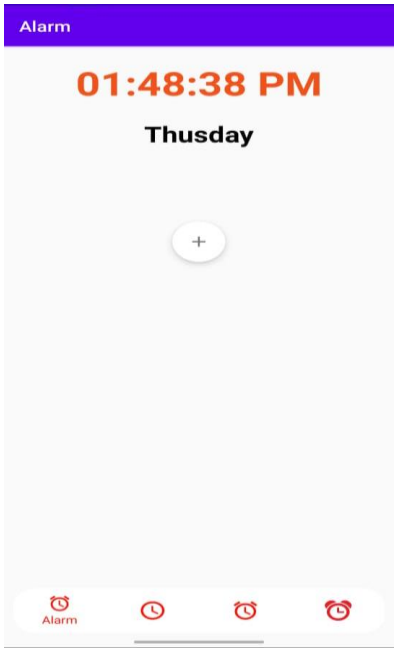

Fig 7.1: Homepage UI

This is the homepage of the application which shows time. From here we can access stopwatch, timer, world clock, alarm.

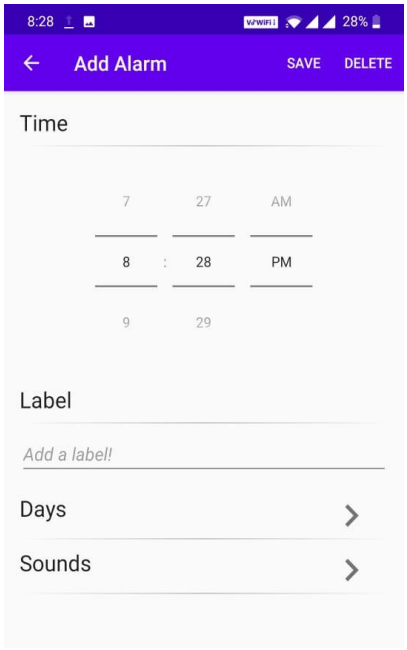

Fig 7.2: Alarm page UI

This is the alarm page from here we can access the file locker. We can set alarm label, days to repeat, alarm tone. If we select the correct alarm tone it will advance into password module.

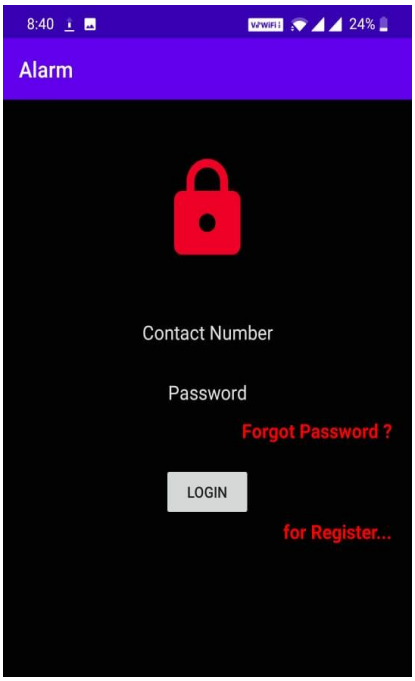

Fig 7.3: Password Page

This is the password page. If we give the correct password it will go into the file locker, If the password is wrong an automatic message is sent to the registered mobile number

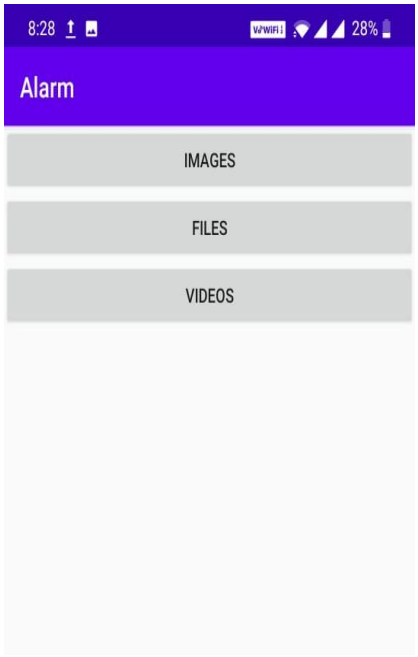

Fig 7.4: File Locker UI

This is the user interface of file locker. We can save and access our files

8. APPLICATION

It can be used by the people who wants to hide their files. It can be used when there is a need to find who's the intruder. It can also be used as normal clock with features like alarm, stopwatch, timer.

9. CONCLUSION AND FUTURE SCOPE

Hence this system can be used when there is a need to lock files from unauthorized access. It is disguised as a clock, hence no one knows it's a file locker. All will think its normal clock, so it can also be used as normal clock with features like alarm, timer, stopwatch. Everyone wants to know who is trying to access their files when they are not around so this system can be used to find who tries to access the file locker by sending an automatic message notification to the registered mobile number. When someone, a close friend or family member found about the file locker and forces us to enter to the file locker, there is a fake locker which shows fake content so nobody knows about the original files. The UI is very simple, so those who don't have that much knowledge about the android can also easily use this file locker. For the future development, we plan to use the online cloud storage to store the user files, so that the files can always be backed up and files are safe even if it is deleted from the mobile phone. It is more secure compared to the internal storage. And we plan on adding app lock support also, so it can be used as app locker also.

10. REFERENCES

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