



Shoulder Shuffling Free Graphical Locker for Android Graphical Pattern Lock with Text Support for Android Devices

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Abstract: An entitled project is going to work on Android devices which is a graphical pattern lock with text support. In this project we are making the more secured touch Screen lock for android based systems by means of which user will get the facility to protect their password pattern guess by other people if the people monitoring while user unlocking their device in public place too.

Keywords: Android; Device; Lock; Pattern; Touch Screen

I. INTRODAUCTION

Security is main issue in world of mobility various company now providing the lock system as they have as built in functionality into their mobile cell phone as various models. We have got an idea about this project as we already know the locking system which is provided by android operating systems as built in software for security lock for device and for application to protect user data like messages, contacts, emails etc.

Current device lock software are available in numeric form and some are based on pattern matching of graphical form so now concerned about pattern matching based software locking system for android devices.

Survey has done on existing software technologies but we got some exception and things which are missing from existing software technology that are can be implemented in this projects.

II. SURVEY

We first see what is current system we have today before go further.

Pass code locked devices are becoming more common as a result of heightened security awareness in consumers and corporations. In the next section, we cover some specific techniques to circumvent pass codes. However, it is not always possible. The first consideration when obtaining information from a device is whether an opportunity exists to immediately disable or otherwise circumvent the pass code.

For devices that have pass codes, there is a short period of time (from less than a minute up to about 15 min) where full access to the device is possible without re-entering the pass code. The ability to circumvent the pass code on an Android device is becoming more important as they are utilized frequently and, in most cases, do not allow data extraction.

As previously discussed, there are three types of pass codes Android devices currently support.

The first is a pattern lock. This was the default on the initial Android devices. To access the device, the user draws a pattern on the locked phone and, if drawn properly, the device is unlocked. An example of a pattern lock on an HTC Incredible is shown in Fig.

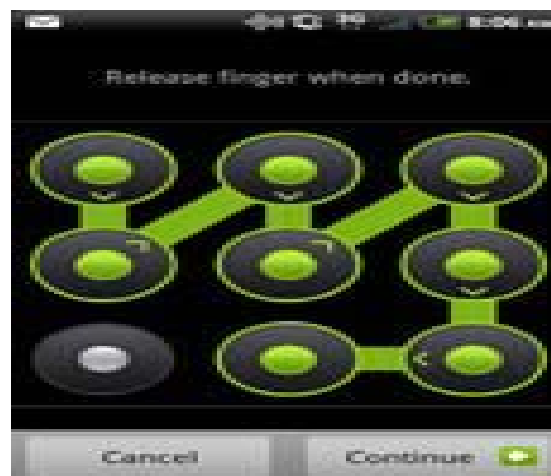


Figure 1. Pattern Lock

The second type of pass code is the simple personal identification number (PIN) which is commonly found on other mobile devices. Following is an example of a PIN enabled HTC Incredible. The final type of pass code currently found on Android devices is a full, alphanumeric code, as shown in Fig.



Figure 2: Numeric PIN Lock

The third one which is most effective pass code is that allows or requires an alphanumeric password, as these are far more difficult to circumvent, as shown in fig.

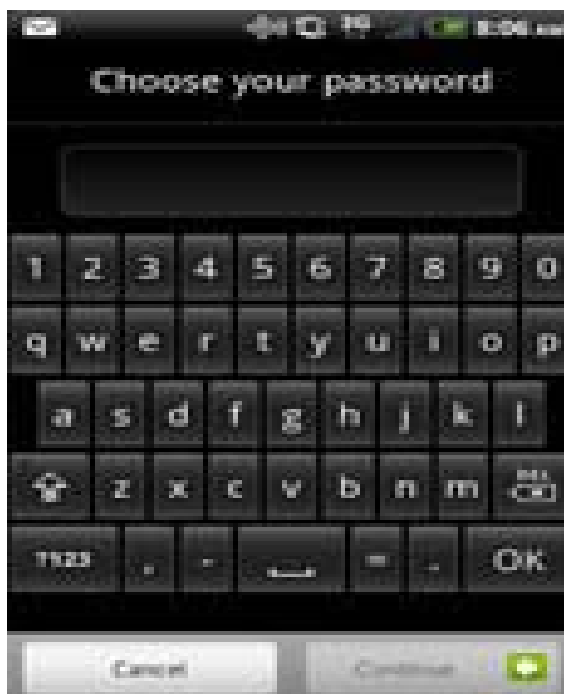


Figure 3 : Alphanumeric Password

III. IMPLEMENTATION OF LOGIC

Survey has done on existing software technologies but we got some exception as we know that pattern locker and numeric locker are not that much favorable to used it in middle of unknown people because we known if someone find the what the password is then he can get access to the device either he is friends of us who can find our mobile behind us or his a competitor of your, who wants your data from your device.

So, we are going to fill this gap of security by implementing following locking system by combining two of current existing locking system **Pattern Lock** and **Alphanumeric lock** with advancements and improvement in bubble which are used to form the pattern of pattern lock.

Step of lock security implementation are going to follow as:

First user going to make his pattern lock as he do in old pattern lock system as shown in fig. as with 3x3 matrix of bubbles. He will save the pattern of lock.

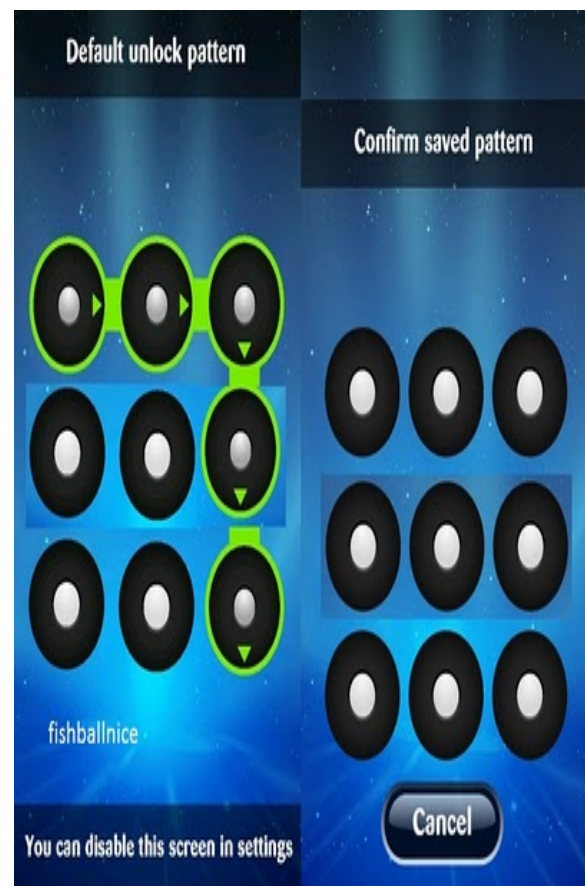


Figure 4: First Time Lock pattern Saved

Second when lock is getting active he again sees the 3x3 matrix of bubbles but in different colors are mixed up. As shown in fig.

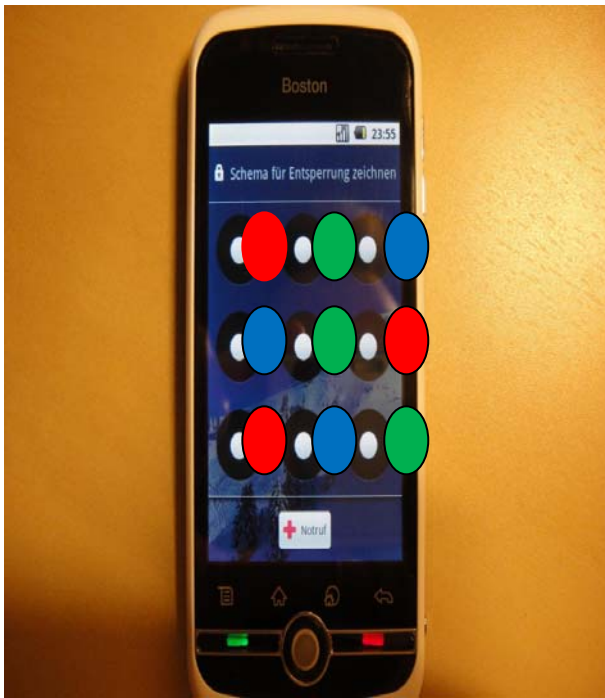


Figure 5: Second Time Lock pattern 3x3 matrix of bubbles colored with RGB

Third now user surely want to unlock the device he has to touch the screen and he will asked not for pattern drawn but he will asked for name of color which are form the pattern he drawn at the time of pattern of lock he know very well

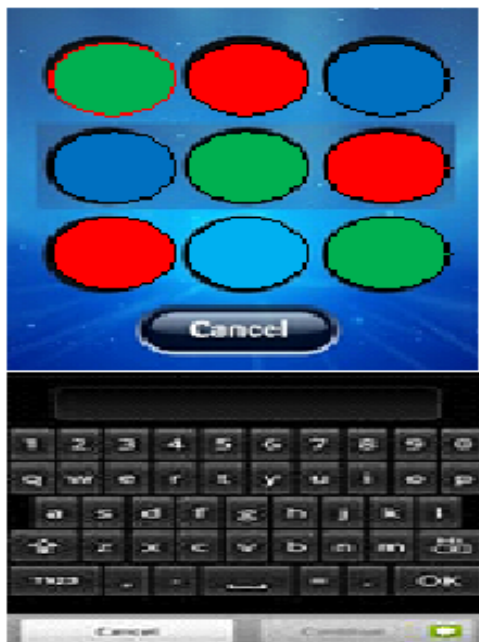


Figure 6: Every Time Locker asked for name of bubbles colored with RGB, which form saved lock pattern

The thing is that user has to imagine the pattern in colored bubble and has to be enter the name of colors of 3x3 matrix of bubble which makes the lock pattern.

A. What makes the Difference here?

Now every time device screen gets lock, colors of 3x3 matrix of bubble get shuffle and no one can guess your pattern of lock.

Main logic is of colors of 3x3 matrix of bubble is made up of Three Basic color RED, GREEN and BLUE(Known as RGB color). Shuffling logic is depends on RGB. Every bubble gets color of RGB differently in different position in matrix. In Programming we can calculate Pattern of lock in the line of position of bubble in the matrix.



Figure 7: Every time Color of Bubbles gets shuffled for security purpose

IV. CONCLUSION

In this word of mobility main issue is security so we had implemented the graphical pattern lock with text support for android devices for mainly hiding the password pattern from other peoples and security is become more secured by the way it implemented graphical way, now its need of new generation of touch screen mobiles and Tables.

A. Abbreviations:

R B G : Red Green Blue.

V. REFERENCES

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- [2] Wikipedia.com
- [3] Code.google.com