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**LOCKER BASED GRAPHICAL PASSWORD AUTHENTICATION FOR DATA
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ABSTRACT

Textual passwords are the most common methods used for authentication. But textual Passwords are vulnerable to eves dropping, dictionary attacks, social engineering and shoulder surfing. Graphical passwords are introduced as alternative techniques to textual passwords. Most of the graphical schemes are vulnerable to shoulder surfing. The main intention of this project is Data Security using the Text-based Graphical pass-word Schemas using color Combination for E-mail system. It secures users data from shoulder surfing attack. Since conventional password schemes are vulnerable to shoulder surfing, many shoulder surfing resistant graphical password schemes have been proposed. However, as most users are more familiar with textual passwords instead of pure graphical password. Unfortunately, none of existing text-based shoulder surfing resistant graphical password schemes is both secure and efficient enough. In this paper, we propose an improved text-based shoulder surfing resistant graphical password scheme by using colors for Data Security. Access to computer systems is most often based on the use of alphanumeric passwords. However, users have interested on graphical password, therefore we have been proposed text based graphical password scheme for application. In this project we have to use the Authentication purpose password Schemas using the Text Based Graphical password for the data security.

KEYWORDS: Authentication, session passwords, Circular password scheme.

INTRODUCTION

Because of increasing threats to networked computer systems, there is great need for security innovations. Security practitioners and researchers have made strides in protecting systems and, correspondingly, individual users' digital assets. However, the problem arises that, until recently, security was treated wholly as a technical problem – the system user was not factored into the equation. The main intention of this project is Data Security using the Text Based Graphical pass- word Schemas using color Combination password useful for E-mail system and also implement encryption and decryption for securely transfer information through E-mail system .We have also added QR-code for transferring commercial data like –images, websites link, any product information etc on E-mail system. Basically the Text Based Graphical password is useful for resistant the shoulder surfing attack. Authentication is the process of determining whether a user should be allowed access to a particular system or resource. It is a critical area of security research and practice. Yet traditional alphanumeric passwords have drawbacks from a usability standpoint, and these usability problems tend to translate directly into security problems.

That is, users who fail to choose and handle passwords securely open holes that attackers can exploit. The shoulder surfing attack in an attack that can be performed by the adversary to obtain the user's password by watching over the user's shoulder as he enters his password. As conventional password schemes are vulnerable to shoulder surfing, Sobrado and Birget proposed three shoulder surfing resistant graphical password schemes. Since then, many graphical password schemes with different degrees of resistance to shoulder surfing have been proposed and each

has its pros and cons. Seeing that most users are more familiar with textual passwords than pure graphical passwords, Zhao et al. proposed a text-based shoulder surfing resistant graphical password scheme, S3PAS. In S3PAS, the user has to mix his textual password on the login screen to get the session password. However, the login process of Zhao et al.'s scheme is complex and tedious. And then, several textbased shoulder surfing resistant graphical password schemes have been proposed. Unfortunately, none of existing text-based shoulder surfing resistant graphical password schemes is both secure and efficient enough.

In this system, we will propose an improved text-based shoulder surfing resistant graphical password scheme by using colors. The operation of the proposed scheme is simple and easy to learn for users familiar with textual passwords. The user can easily and efficiently to login the system without using any physical keyboard or on-screen keyboard.

RELATED WORK

Dhamija and Perrig[1] proposed a graphical authentication scheme where the user has to identify the pre-defined images to prove user's authenticity. In this system, the user selects a certain number of images from a set of random pictures during registration. Later, during login the user has to identify the pre selected images for authentication from a set of images as shown in figure 1. This system is vulnerable to shoulder-surfing.

Figure 1:



Figure 1: Random images used by Dhamija and Perrig

Passface [2] is a technique where the user sees a grid of nine faces and selects one face previously chosen by the user as shown in figure 2. Here, the user chooses four images of human faces as their password and the users have to select their pass image from eight other decoy images. Since there are four user selected images it is done for four times.

Figure 2:



Figure 2: Example of Passfaces

PROPOSED AUTHENTICATION SCHEMES

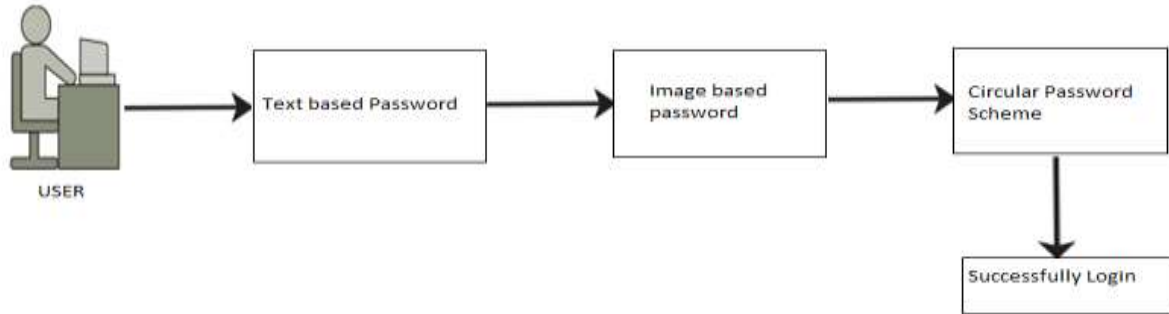


Figure 5: System Architecture

In proposed system, we give the secure password by making combination of text, image Circular Password for data security. Text based password nothing but regular textual username and password scheme. For ex. In system login Username is Admin, Password is also Admin. In image based password scheme where the user has to identify the pre-defined images to prove user’s authenticity. In this system, the user selects a certain number of images from a set of random pictures during registration. Later, during login the user has to identify the pre-selected images for authentication from a set of images. In circular password scheme, we provide anticlockwise and clockwise selection of alphabets. Selection of alphabets based on degree of rotation in anticlockwise or clockwise direction. In this scheme we give degree of rotation as a Input.

A. Registration phase

The user has to set his textual password K of length L ($8 \leq L \leq 15$) characters, and choose 3 images from list of 9 images and then set password by circular scheme by giving angle of rotation as a input.

B. Login phase

The user requests to login the system, and the system first displays textual password window. In this window user has to enter correct username and password. Second window opens when textual password is correct. In second window user has to choose 3 correct images which are set at the time of registration. Third window opens when images based password is correct. In third window user has to give degree of rotation as a password which is given at the time of registration. If it is correct then user successfully login.

IMPLEMENTATION

1. Registration(Sign Up):

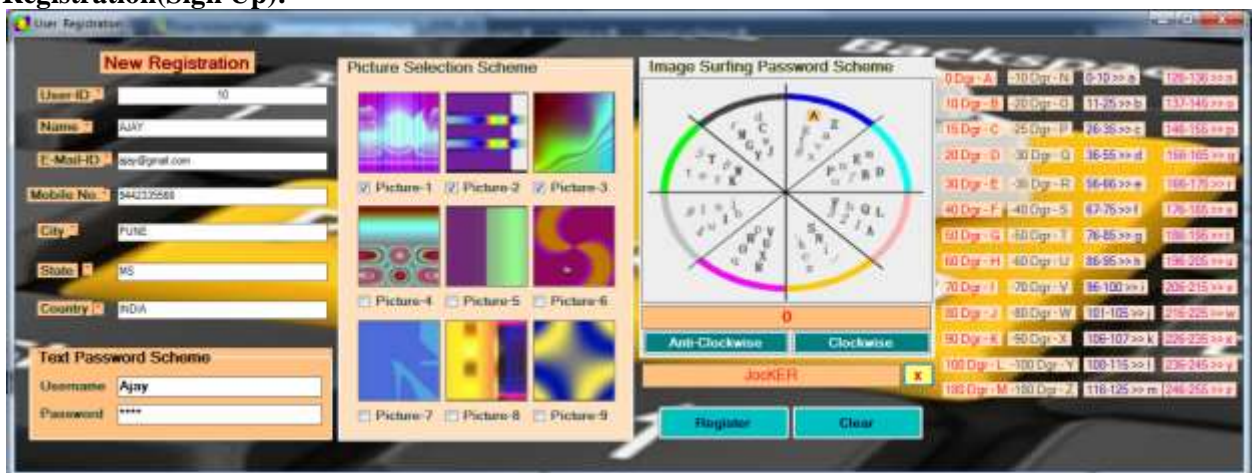


Figure 6: New Registration (Sign Up)

2. Text Based Password:

3. Image Based Password:



Figure 7: Text Based Password

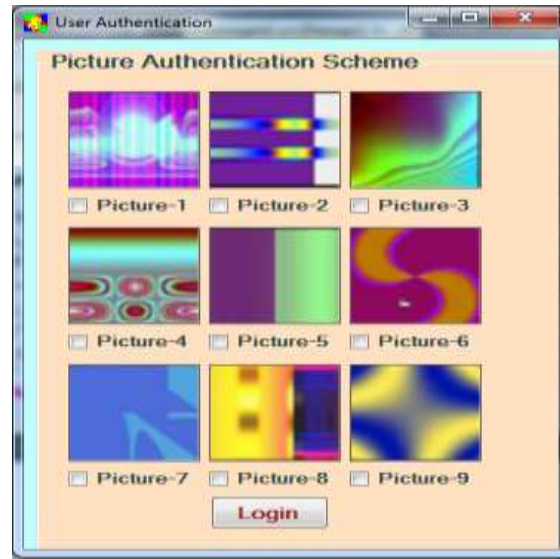


Figure 8: Image Based Password

4. Locker Based Password:



Figure 9: Locker Based Password

CONCLUSION

In this paper, we have proposed a simple Locker based graphical password, in which the user can easily and efficiently complete the login process without worrying about shoulder surfing attacks. The operation of the proposed scheme is simple and easy to learn for users familiar with textual passwords. The user can easily and efficiently to login the system without using any physical keyboard or on-screen keyboard.

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