

PASSWORD MANAGER: AN ANDROID APPLICATION PROVIDES A SOLUTION FOR THE INEVITABILITY OF REMEMBERING A PLETHORA OF USER'S ONLINE ACCOUNTS

PRIYA CHANDRAKAR

ABSTRACT

"Password Manager", an Android Application provides a solution for the inevitability of remembering a plethora of user's online accounts. Using this application, the user can access all the accounts with a master password. It provides the facilities to add web account with required information, select URL to access the URL by auto filling the required account information like Username and password. These application is mostly useful for the old age people who forgets the various passwords every time. Generally people have their many accounts and respective passwords, remembering all passwords are a difficult task. This application helps to remember accounts information. They need to remember only the master password to access all those accounts which are added in password manager.

KEYWORDS: Password Manager, Android Application, Key Press Mechanism.

INTRODUCTION

This Application gives a solution to the problem of memorizing passwords. Its purpose is to keep all of the Usernames, passwords, account related data stored in a encrypted database, protected by a Master Password. We can create more than one user accounts in this application, it helps multiple users of one mobile .In many sites auto filling mechanism is not supported so we are using like key press mechanism.

Password Manager is an Application that can be easily works in any android mobile phone. Its purpose is to solve a problem that really bothers for many people (especially old age and disabled person) when they have to memorizing lot of passwords for secure access.

So it provides you a very secure, encrypted database where you can keep inside all your passwords, usernames, email accounts, web accounts URLs without any risk of unauthorized access. That is because Password Manager can lock every database with only one Master Password. In this application multiple people can create their accounts to store all of their username and passwords.

Password Manager provides functionalities to store the passwords and account details through which user can access their accounts by remembering the master password. The user can easily use the account details and redirect to that link he/ she want to access.

PRODUCT FUNCTIONS

- Password Manager provides the user with the following functions:
- Only registered users can access their accounts.
- Multiple user accounts can be created in Password Manager.
- User must have their own account and their master password to access their accounts.

USERS

- Stores the account information.
- Edit profile.
- Add accounts.
- Modify accounts.
- Delete accounts.
- Change Master Password.

PASSWORD MANAGER

- Shows the account details.
- Search URL.
- Redirect to the selected URL.
- Auto fills (Using KEY PRESS MECHANISM) the username and password in selected URL.

A. USER CLASSES AND CHARACTERISTICS

- Each User has a valid Master password.
- User can view personal profile.
- User can change personal details and Master password.

B. OPERATING ENVIRONMENT

The Password Manager Application will be operating in Android phones environment.

DESIGN AND IMPLEMENTATION CONSTRAINTS

- The user can login to the Application with a master password, after successfully login to the application it shows the users profile and search URL.
- Users can Add, Modify and Delete account details.
- Users can change the Master password.
- When the Master password is active, all passwords are stored encrypted in process memory so in order for them to be completely safe the ARC4 encryption algorithm is used, using a random 12 bytes long key.

A. USER DOCUMENTATIONS

By downloading Password Manager, the user also gets:

- A compiled HTML Help file with a tutorial and full help on all features provided.

B. ASSUMPTIONS AND DEPENDENCIES

- Password Protector
- Key Pass Password Safe

EXTERNAL INTERFACE REQUIREMENTS

USER INTERFACES

Application will be accessed through an Android phones. After installing the application, the user will be able to access the password manager application. No user would be able to access any part of the application without logging on to the system.

HARDWARE INTERFACE

- Operating system : Android OS
- Processor : 1 GHz
- Storage : 100MB or more
- RAM : 256MB or more

SOFTWARE INTERFACES

- It should be possible for Password Manager Application to be implemented in Android Operating System environments.
- The GUI and other parts of the Password Manager Application are to be done in Eclipse IDE.

COMMUNICATIONS INTERFACES

Android phones are required to access the password manager applications.

SYSTEM FEATURES

USERS OF PASSWORD MANAGER APPLICATION ARE

- Any android phone user can use this application.
- Multiple users can use the password manager with multiple accounts.

RESPONSIBILITIES PASSWORD MANAGER APPLICATION

- Registering users for storing passwords.
- Allowing the user to modify, delete profile and change master password.
- Search the selected URL ,redirect to that URL and auto fill the account information to access the accounts

NEED FOR THE PASSWORD MANAGER APPLICATION

- To create an easily managed passwords, no need to remember all the password,

especially for old age people who always forget the various passwords.

SYSTEM FEATURES

FUNCTIONAL REQUIREMENTS

- This section gives a functional requirement that applicable to the Password Manager Application.
- Their Application will be used by multiple users in one Android phone, one at a time.
- The functionality of Users module is:

USER MODULE

- Create account in password manager application.
- login to the **Password Manager Application**
- view the users profile
- add the account details
- modify/delete account details
- Change Password

The functionality of Password Manager is:

APPLICATION

- Shows the users profile
- Search URL
- Redirect to the selected URL
- Autofill the required account information to the website
- Password in encrypted format
- Add account
- Modify account
- Delete account

OTHER NONFUNCTIONAL REQUIREMENTS

A. PERFORMANCE REQUIREMENTS

When a password is copied, it remains on memory for only 10 seconds. If in the meanwhile it is not pasted anywhere, it

must be copied again. That happens so that if user copies a password and not paste it anywhere, the password cannot be found by anyone later.

B. SAFETY REQUIREMENTS

Since the Application is freely available to use, any kind of loss, damage or harm caused by use of the Application will be a concern of the user.

In case the user forgets or loses the Master Password, the repair functionality won't help.

To avoid this kind of situations, backups can be done regularly.

C. SECURITY REQUIREMENTS

The user needs to login to the system with their own Master password .only authenticated user can access the password manager for security purpose.

D. SOFTWARE QUALITY ATTRIBUTES

The Quality of the Application is maintained in such a way so that it can be very user friendly to all the users. The Application quality attributes are assumed as under:

- Accurate and hence reliable.
- Secured.

- Fast speed.
- Compatibility
- Easily managed database

E. MAINTAINABILITY

The Application developing using java, all action is detailed in web.xml that easy to modify and make update.

F. PORTABILITY

The application is coding in J2EE therefore, it should be transferable between different OS and Java.

G. OTHER REQUIREMENTS

If application is to be used in some people who planned to use the application should make sure that the system is behaving accordance with the target legal frame and requirements. And if it is not they should make appropriate adjustments.

REFERENCES

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