Review Article

Development of a Secure Notepad: Facilitating a Java Language Learning through an Integrated Web Platform

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I N F O

A B S T R A C T

A secure text editor is a short and uncomplicated utility program which can be used by the consumers to delete a paragraph without leaving a mark and incorporate a word, sentence or paragraph in between a document. Notepad system is a simple text editor, designed for users to create content unformatted and is a very basic word processor which doesn't require any special skills or tutorial. In the current article, secure notepad is built using password authentication, which requires a username and password; the user can connect to notepad using this method. Visual Basic 2010 Express Edition and Microsoft Access (as a database management system) were used to build the system. The created notepad was used to make a website for learning Java. The website was designed utilising (HTML, JavaScript, CSS, PHP) programming languages, as well as MySQL (stander query language) to build a database and several supported tables.

Keywords: Integrated Web Platform, Java Language, Secure Notepad

Introduction

A text editor is a program used for editing plain files and often provided with operating system or software development packages. It can be used to change configuration files and programming language source code. Notepad is a simple text editor included in all versions of Microsoft Windows since Windows 1.0 in 1985. If the file contains special formatting or not plaintext files, it will not be able to be read in Microsoft Notepad.[1]

To access notepad, users should have proper access rights. One of the simplest and most convenient security mechanisms is the use of a password authentication scheme, where each user should have an Identifier (ID) and a password (PW). When a user wants to login to the notepad, he/she has to submit his/her ID and PW to the program. If the submitted ID and PW match the corresponding pair stored in the database password table, the user will be granted to access the program.[2]

Literature Review

Text editing exemplifies the type of computer application that exploits a computer's capability to store and display data, handle abstract and complex data structures and react immediately on command.[3] The majority of current research on interaction techniques has focused on methods of direct manipulation, voice and gesture input as the prime ways of interacting, a Virtual Notepad was proposed which is a collection of interface tools that allows the user to take notes, annotate documents and input text using a pen,

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while still immersed in virtual environments.[4] And because of human beings live and interact in an environment where the sense of sight is predominant for most activities, our brains are capable of processing and storing large amounts of graphical information with ease. These graphical data represent millions of bytes of information and thus provide large password spaces. Thus, graphical password schemes provide a way of making more human-friendly passwords while increasing the level of security.[5]

Most of the papers searched are used passwords for authentication by using textual password, alpha- numeric password and graphical password. New authentication schemes authenticate the user by session passwords which are used only once. Once the session is terminated, the session password is no longer useful. some authentication techniques are based on text and colors proposed for PDA in this they generate the session passwords and resistant to dictionary attack.[6]

The Internet can be a convenient place for potential consumers to gather information. Thus, Information access is key features of Web site design. A high-quality Web site has the potential to attract more consumers and encourage them to purchase goods and revisit the site. At present, there are a variety of approaches for measuring Website quality. Some researchers focus on the technical quality of the Web site. Some define Website quality in terms of the service quality provided to consumers.[7-9]

A modern site is essentially a large and complex piece of software and as such should be subject to acceptable software engineering practice. Declarative Website Design takes the view that the implementation technology used should not drive the design of the website, but rather the design should start with a high-level specification which is easily maintainable and from which one or more implementations can be derived.

Notepad

Notepad is a text editor included with Windows operating system, which allows users to open and create text files and write several paragraphs of text using line breaks (by pressing the Enter key), the program does not have text formatting options. For example, the user cannot change the font size or make the text bold.[4]

Notepad is a good choice for creating web pages (HTML, JavaScript, PHP documents) and writing scripts or basic computer programs since these types of documents do not require any text formatting. It is also useful for removing formatting from text that you have copied and want to paste somewhere else as plain text. Just paste the text into Notepad, copy it again from Notepad, you have completely unformatted text.[10-11]

Features of Notepad

- Minimal editing features.
- It has word wrap which prevents text from running over into the margins and automatically moves text to the next line.
- Used to create/save/open/edit file.
- Can create time log.
- Within Notepad – cut, copy, paste text.
- Copy data to Notepad from other files.
- Copy Notepad text to other word processing text or database document

Conclusion

The article is kindred with the development of a secure text editor, which facilitates an administrator to watch log file. Microsoft Visual basic 2010 expresses sedition and Microsoft access were used to design and develop the notepad system, where the following tasks are accomplished:

- To log into the Microsoft Visual Basic 2010 expresses edition by design one has to create a User Id and Password
- Link this login to a spatial notepad system
- Access any folder or file on the computer from any partition
- Save the notepad page to any of the computer's partitions
- Cut, copy, undo, paste, select all, search the notepad program for any text (word or sentence)
- Using the notepad program, color the font of the text (word or sentence)

Using the designed secure notepad to build a website for learning JAVA language using MySQL program to build database and HTML, JavaScript, CSS, PHP which are powerful, easy programming languages.

Future Work

For secure notepad, we proposed the following:

Adding an online help option to search the web for the solution of any problem in the notepad program.

Develop notepad program to help the user to remember the password in case he/she forgets it.

For website design, we propped the following:

- Enables users to upload lessons
- Enable users to give their opinion about everything in the site

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