**Password Generator Webpage Documentation**

# **Introduction**

This document provides documentation for the Password Generator webpage, which allows users to generate random passwords and save them for future reference. It includes information about the HTML structure and JavaScript functionality of the webpage.

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## **HTML Structure<a name="html-structure"></a>**

The HTML structure of the Password Generator webpage consists of the following elements:

## **<div class="container">:**

* The main container for the webpage content.
  + Contains a title and input elements for generating and displaying passwords.

## <h2>:

* The heading that displays "Random Password Generator."

## **<div class="search-box">:**

* Contains an input field for displaying generated passwords and a copy button.
  + Input field with id="password":
  + Displays generated passwords.
  + <img> with id="copy-password": Allows users to copy the displayed password to the clipboard.
* <button> with id="mybutton":
* Initiates the password generation process.
* <div class="saved-password">:
* Section for displaying saved password history.
  + <button> with id="show-button": Shows the saved password history.
  + <div class="saved-data">: Contains saved password entries.
    - <p> with class="password-entry": Displays saved passwords.
    - <img> with class="copy-password": Allows users to copy saved passwords to the clipboard.
  + <button> with id="hide-button": Hides the saved password history.

# JavaScript Functionality

<a name="javascript-functionality"></a>

The JavaScript code (index.js) provides the functionality for the Password Generator webpage. It includes the following features:

Generating a Random Password<a name="generating-a-random-password"></a>

* When the "Generate New Password" button is clicked (id="mybutton"), a random password is generated.
* The password is a combination of uppercase letters, lowercase letters, numbers, and symbols.
* The generated password is displayed in the input field with id="password".
* The generated password is saved to local storage for future reference.

Saving Generated Passwords<a name="saving-generated-passwords"></a>

* The generated passwords are saved in an array called savedPasswords.
* The savedPasswords array is updated whenever a new password is generated.
* The updated savedPasswords array is stored in local storage using the key "passwords."

Displaying and Hiding Password History<a name="displaying-and-hiding-password-history"></a>

* Clicking the "Show History" button (id="show-button") displays the saved password history.
* Clicking the "Hide History" button (id="hide-button") hides the saved password history.
* Saved password entries are displayed in <p> elements with class="password-entry".

Copying Passwords to the Clipboard<a name="copying-passwords-to-the-clipboard"></a>

* Users can copy generated passwords to the clipboard by clicking the copy button (class="copy-password").
* The document.execCommand("copy") method is used to copy the password to the clipboard.

Loading Passwords from Local Storage<a name="loading-passwords-from-local-storage"></a>

* On page load, the loadPasswords function retrieves the saved passwords from local storage.
* The retrieved passwords are added to the savedPasswords array for display.