Team Firewall

Two-step Authentication Login

Written Requirements

Revision History

Authors	Description of Change	Sections	Rev	Date
Team Firewall	Initial Release			3/13/18

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Revision History

Authors	Description of Change	Sections	Rev	Date

1   Team Description

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2   Terminology

The following table defined terms used within this document.

<define key terms used in your document that would not be commonly understood. Any terminology that is key to your system should be defined here. Any term you invented or that have special meaning within the context of your system should be defined here. Remove this blurb before completing document.>

Term	Definition
User	A person operating a computer that is accessing the system
System	The website and the database hosted on a server
Database	SQL database to store user data

3   Two-step Authentication Login

system Login utilizing a two factor authentication.

3.1   Overview

This program simulates a system login that allows basic account creation, deletion and modification that is protected by a two factor authentication system.

3.1.1   Create Account

Shall allow the user to create an account in order to being using the system

3.1.1.1   Username Creation

The system **shall** only accept a unique username with a minimum of four american alphabet letters and/or numbers and a maximum of fifteen american alphabet letters and/or numbers.

3.1.1.2   Password Creation and Confirmation.

The system **shall** only accept a password with a minimum of six american alphabet letters and/or numbers and a maximum of fifteen american alphabet letters and/or numbers. The system **shall** only create the account if both password inputs are verbatim.

3.1.1.3   Email and Email confirmation

The user **shall** input their email address twice to make sure they are verbatim. If they are not verbatim, the system will not allow the creation of the account

3.1.1.4   Security Questions

The user **shall** input three security questions of their own choosing and three answers regarding to their questions. This will allow the user to recover their password by using the *Recover Password* option. It **shall** allow the user to answer their questions in order to recover their password.

3.1.1.5   Account confirmation

If all the steps above were verified and passed the requirements, the user will be sent an email to confirm their account in order to access the homepage

3.1.1.6   2-Step authentication
After the user has logged in and verified their account, the system **shall** make the user opt in to the 2-step authentication service.

3.1.2   Login

Users will be able to access content in the system after providing valid credentials to login.

3.1.2.1   Check Credentials
The system **shall** take the credentials that the user inputted against the database on the system. During this step, It **shall** also check to see if this particular user has accessed the system on this computer beforehand. If they have, the system **shall** move onto "Allow Access to internal system", otherwise the system shall move onto 3.1.6.

3.1.2.2   Allow Access to internal system
The system **shall** redirect the user with correct credentials to the homepage that is provided to all valid users.

3.1.3   Edit Account Info

The user **shall** be able to change the information stored in their account.

3.1.3.1   Change Username or Password
The user **shall** be able to change their username to another unique one with a minimum of four american alphabet letters and/or numbers and a maximum of fifteen american alphabet letters and/or numbers.

The user **shall** be able to change their password to one with a minimum of six american alphabet letters and/or numbers and a maximum of fifteen american alphabet letters and/or numbers.

3.1.3.2   Change Email Address
The user **shall** be able to change the email address associated with their account to a different valid email address.

3.1.4   Delete Account

The user **shall** request from the system that their account be deleted from the database.

3.1.4.1   Request Account Deletion

The user **shall** request the system to delete their account from the database.

3.1.4.2   Required 2 Step Authentication

The system **shall** run 2nd level Authentication in order to ensure the user is authenticated, regardless of any settings. Once 2nd Level Authentication is completed, the account **shall** be deleted.

3.1.5   Opt in/out of 2-step authentication

The user **shall** be able to opt in/out of a 2-step authentication.

3.1.5.1   Opt out

By default, the user is automatically placed in our 2-step authentication system upon account creation. If the user desires, the system **shall** allow the user to opt out of the 2-step authentication.

3.1.5.2   Opt in

If the user decided to opt out of the 2-step authentication system, the system **shall** allow the user to opt back in the 2-step authentication.

3.1.6   2nd level authentication

Shall allow the user to enter the code sent to them via email to authenticate.

3.1.6.1   The System will call for a 2 Step Authentication

The system **shall** dictate when the user must perform a 2 Step Authentication based on specific conditions.

3.1.6.2   Validate 2 Step Authentication Code

The system **shall** email the provided email a 4-digit code along with a link to provide the 4-digit code. The user **shall** access the link provided and enter their 4-digit code provided to them in the email. The system **shall** update the database showing that the user has successfully passed the 2 Step Authentication step on their there account or computer.

3.1.7   Recover username and password

The user **shall** be able to recover their username or password.

3.1.7.1   Recover username

The user **shall** receive an email with their current username.

3.1.7.2   Reset Password

After the user correctly answers one of their security questions, the user **shall** receive an email link to change their username to another unique one with a minimum of four american alphabet letters and/or numbers and a maximum of fifteen american alphabet letters and/or numbers.

3.1.8   Remember username and password

The server **shall** save the username or password or both for the user so that they don't have to enter it when they login if the user desires so.