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**Your PassWORD is Outdated**

*An Upgrade to PassSENTENCE is advised!*

*Product Design Report*

# Product Overview

## Visual

Upon loading the browser plugin the user will be introduced to the product with the following screen:

PassSentence Manager

**Welcome Page**

Login

Sign Up

The user will then click on their desired action. Depending on which button is chosen either one of the following two screens will be displayed:

Select Your Username

……………………………………………………………………………………………………………………………………………………

PassSentence Manager

**Sign Up**

Sign Up

Enter Your Username

……………………………………………………………………………………………………………………………………………………

PassSentence Manager

**Login**

Login

If the user enters the next page via the ‘Sign Up’ page/button, they will be shown the following page:

Create New Password

PassSentence Manager

Welcome *‘Username’*

However, if the user enters via the ‘Login’ page/button the following page is displayed:

Create New Password

PassSentence Manager

Welcome *‘Username’*

View Passwords

When the ‘Create New Password’ button is pressed on either of the two previous pages the following page is displayed:

PassSentence:

PassSentence Manager

Website Name:

Are Numbers Allowed?

Are Special Characters Allowed?

Password Minimum Length?

Password Maximum Length?

Yes

No

Yes

No

Are Capital Characters Required?

Yes

No

**New Password Generation**

*Drop down list of numbers.*

Generate Password

ManchesterMetropolitanUniversityIsGreat

LinkedIn

Back

Once the user has entered all of the relevant information and clicks on the ‘Generate Password’ button they will be taken to the following page:

PassSentence Manager

**New Password**

Regenerate

ManchesterMetropolitanUniversityIsGreat

LinkedIn Password:

eMtasiMotrsl

 6,1,39,2,29,25,11,15,31,36,34,18

Plain Text

Stored in PassSentence Manager as

Save Password

or

PassSentence:

Back

If a user is unsatisfied with the password generated they can choose to generate a different password by clicking on the ‘Regenerate’ button. If they are satisfied with the password they click on the ‘Save Password’ button and the password is saved onto the database.

If the user is a returning user and chooses to view their current passwords by clicking on the ‘View Passwords’ button on page 3 they are shown the following page:

PassSentence Manager

Passwords for ‘*Username*’

Website

 Password

Facebook

 Twitter

 1,3,5,9,7,25,35,11,4,9,28,13

2,26,11,34,9,3,18,31,22, 5,1,15

PassSentence:

Enter your PassSentence in the box provided and click Show Passwords to view the plaintext version of the passwords.

Show Passwords

Back

If the user enters their PassSentence into the provided box they are then shown the following page:

Facebook

 MnhesiGMcert

PassSentence Manager

avMsenlinhMo

Twitter

ManchesterMetropolitanUniversityIsGreat

Passwords for ‘*Username*’

Website

 Password

PassSentence:

Back

## Operation

The program will use the following algorithm designs:

### Password Display for Active Users

#### No PassSentence

Obtain the username from the page;

Retrieve all passwords for user from database;

Display stored website name and passwords in a table on screen;

#### PassSentence Entered

Amend the passwords to show the plaintext version;

Display plaintext passwords to user;

Allow copy and paste of passwords;

### Password Creation

Obtain website name from page;

Obtain PassSentence from the page;

Convert PassSentence to individual character list;

Select 14 digits from the character list;

Add random digit;\*

Add random special character;\*

Store character positions, digit and special character used in a new list (A);

Store characters used in a second new list (B);

Display website name and contents of A and B in boxes on the screen;

Save website name and contents of A into the database for the user;

(\* - if required)

## Coding

I will create a prototype version of the program in the form of a stand-alone program written in Python. This will run in the command line of a PC and will be used for testing and debugging purposes. Once all visibly bugs are overcome the algorithm design will be converted to be run in as a web browser plug-in.

The plug in will be written using JavaScript. I will be attempting to create the plugin using the Kango framework as I believe this will offer me the best form of cross-browser compatibility.