***Password Generator PseudoCode / Algorythm***

**Problem:**

GIVEN I need a new, secure password

WHEN I click the button to generate a password

THEN I am presented with a series of prompts for password criteria

WHEN prompted for password criteria

THEN I select which criteria to include in the password

WHEN prompted for the length of the password

THEN I choose a length of at least 8 characters and no more than 128 characters

WHEN prompted for character types to include in the password

THEN I choose lowercase, uppercase, numeric, and/or special characters

WHEN I answer each prompt

THEN my input should be validated and at least one character type should be selected

WHEN all prompts are answered

THEN a password is generated that matches the selected criteria

WHEN the password is generated

THEN the password is either displayed in an alert or written to the page

**PseudoCode:**

1. Get the user to enter what type of character is to be included in the password.
   1. Create a Boolean variable for each type.
2. Get the user to enter the length of the password.
3. Generate 1 random character.
4. Get 4 different random character base on lowercase, uppercase numeric and special character.
5. Repeat step 2 to get to the desire length of the password.
6. How to build the password:
   1. Have the selected type of character in the same sequence, for example: lowercase/uppercase/numeric/special.
   2. Have the password build the structure randomly.
      1. If yes then have a 5th variables to randomly get which type of character is coming next.
7. Return the generated password.

**Algorythm:**

* Get “include lowercase”? True/False
* Get “include uppercase”? True/False
* Get “include numeric”? True/False
* Get “include special”? True/False
* Get “length” of password
* Loop character 0 to length – 1
  + Generated random Character Type
    - If Character Type is lower and lowercase is selected

Then add character to password

* + - If Character Type is upper and uppercase is selected

Then add character to password

* + - If Character Type is numeric and numeric is selected

Then add character to password

* + - If Character Type is special and special is selected

Then add character to password

* + - ELSE disregard the character generated
* End loop
* Show generated password.