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Unit 1 Project

Password Generator Algorithm

Step 1: Take into account the total number of vowels and consonants in the site name. (In this case," Y" is always a vowel). Multiply the number of consonants by itself. That number corresponds with the letter in the alphabet in alphabetical order (1=A or 10=J). This is a Capital letter.
Step 2: If the number of vowels is an even number, then change the number into its alternate key. This is the alternate key guide--->(!=1, @=2, #=3, $=4, %=5, ^=6, &=7, *=8, (=9,)=0,). If the number of vowels is an odd number, then keep the number.
Step 3: Take every even letter from the sites name and put it in an Upper-case and lower-case pattern
Step 4: Use the total amount of letters into the password. (1 digit)
Step 5: Add the first and last letters of the site's name in lower-case.
Step 6: If the name of the site has an odd total amount of letters, take the center letter in lower-case. If the name of the site has an even total amount of letters, then take the first letter of the two centered letters in upper-case.
Step 7: Take the second letter of the website name (domain name if no website name) and add it in the 6th slot of the password. (Lower case)
Step 8: Add the last letter of the site name and place it into the start of the password. (Lowercase)

Annotated Example:

YouTube

Step 1: D
Take into account the total number of vowels and consonants in the site name. (In this case," Y" is always a vowel). Multiply the number of consonants by itself. That number corresponds with the letter in the alphabet in alphabetical order (1=A or 10=J). This is a Capital letter.

Step 2: D5
If the number of vowels is an even number, then change the number into its alternate key. This is the alternate key guide--->(!=1, @=2, #=3, $=4, %=5, ^=6, &=7, *=8, (=9,)=0,). If the number of vowels is an odd number, then keep the number.

Step 3: D5oTb
Take every even letter from the sites name and put it in an Upper-case and lower-case pattern

Step 4: D5oTb7
Use the total amount of letters into the password. (1 digit)

Step 5: D5oTb7ye
Add the first and last letters of the site's name in lower-case.
Step 6: D5oTb7yet

If the name of the site has an odd total amount of letters, take the center letter in lower-case. If the name of the site has an even total amount of letters, then take the first letter of the two centered letters in upper-case.

Step 7: D5oTbo7yet
Take the second letter of the website's name/domain and add it in the 6th slot of the password. (Lower case)

Step 8: eD5oTbo7yet
Add the last letter of the site name and place it into the start of the password. (Lowercase)

	Youtube	**Amazon**	**Facebook**	**Twitter**	**Fandango**
Step 1	**D**	**l**	**P**	**Y**	**Y**
Step 2	**D5**	**l3**	**P$**	**Y5**	**Y3**
Step 3	**D5oTb**	**l3mZn**	**P$aEoK**	**Y5wTe**	**Y3aDnO**
Step 4	**D5oTb7**	**l3mZn6**	**P$aEoK8**	**Y5wTe7**	**Y3aDnO8**
Step 5	**D5oTb7ye**	**l3mZn6an**	**P$aEoK8fk**	**Y5wTe7tr**	**Y3aDnO8fo**
Step 6	**D5oTb7yet**	**l3mZn6anA**	**P$aEoK8fkE**	**Y5wTe7trT**	**Y3aDnO8foD**
Step 7	**D5oTbo7yet**	**l3mZnm6anA**	**P$aEoaK8fkE**	**Y5wTew7trT**	**Y3aDnaO8foD**
Step 8	**eD5oTbo7yet**	**nl3mZnm6anA**	**kP$aEoaK8fkE**	**rY5wTew7trT**	**oY3aDnaO8foD**

Rubric

Content Area	Performance Quality			
Readability	Algorithm is typed, organized, and nicely formatted for easy use.	Algorithm is organized and nicely formatted for easy use, but is not typed. —OR— Algorithm is typed, but the formatting and organization makes it somewhat difficult to use.	Algorithm has formatting and organization that makes it somewhat difficult to use AND is not typed. —OR— Algorithm may be typed, but the formatting and organization makes it extremely difficult to use.	Not enough criteria are met in order to award any credit.
Flow	The algorithm incorporates the appropriate use of all three types of programming structure: sequencing, selection, and iteration.	The algorithm incorporates the appropriate use of only two types of programming structure: sequencing, selection, and iteration.	The algorithm incorporates the appropriate use of only one type of programming structure: sequencing, selection, and iteration.	Not enough criteria are met in order to award any credit.
Correctness	The algorithm generates a unique and reproducible password for all sites.	The algorithm generates a reproducible password for all sites, however, some may not be unique. —OR— The algorithm generates a unique and reproducible password for most sites. —OR— The algorithm generates a unique password for all sites, however, it is not reproducible.	The algorithm generates a password for all sites, however, some may not be unique or reproducible. —OR— The algorithm generates a unique and reproducible password for only a few sites.	Not enough criteria are met in order to award any credit.
Effectiveness	The algorithm cannot be easily deduced from just the password and the name of the site.	A few parts of the algorithm can be easily deduced from just the password and the name of the site.	Most parts of the algorithm can be easily deduced from just the password and the name of the site.	Not enough criteria are met in order to award any credit.

Examples	There are five sample passwords generated correctly based on the algorithm.	There are four sample passwords generated correctly based on the algorithm.	There are three or fewer sample passwords generated correctly based on the algorithm.	Not enough criteria are met in order to award any credit.
Documented Case	There is one annotated example documented at all steps of the process. —AND— It is well formatted and organized and easy to follow.	There is one annotated example documented at most steps of the process AND It is well formatted and organized and easy to follow. —OR— There is one annotated example documented at all steps of the process, but the organization and formatting makes it difficult to follow.	There is one annotated example documented at some steps of the process AND It is well formatted and organized and easy to follow. —OR— There is one annotated example documented at all steps of the process, but the organization and formatting makes it extremely difficult to follow. —OR— There is one annotated example documented at most steps of the process, but the organization and formatting make it difficult to follow.	Not enough criteria are met in order to award any credit.