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Mr. Myers
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Unit 1 Project

Password Generator Algorithm

Step 1: Take the first 3 letters from the domain (URL), move one letter forward for each one (ex. A would become B, Z would become A, S would become T, etc). If the domain has numbers in it (ex. 123movies.com), subtract 1 from the number (ex. 1 would become 0, 2 would become 1, etc). Combine together if there are both numbers and letters and write them down.

Step 2: Only for alphabets or letters: capitalize the 2nd letter out of the first 3 letters you wrote down (ex. gBd). If it is numbers: spell out the 3rd number in the sequence (ex. 01two). If there is only 1 or 2 numbers spell it all out (ex. one or onetwo) and write them down.
Note: If the domain has letters and numbers (ex. 123movies.com) use the corresponding rule and combine it (ex. 01twonPwjft)

Step 3: Count the amount of characters total in the domain (don't count past the domain type), and write the number down. (ex. 123movies.com would be 9 characters)

Step 4: Put everything in order, write what you got for steps 1 and 2 first, then add step 3 to it

Step 5: Take the first vowel from the domain (ex. Facebook the first vowel is an A) and associate it with the words from the Phonetic alphabet (ex. A would-be alpha). See the Phonetic alphabet chart below.

NATO Phonetic Alphabet

A	Alpha	N	November
B	Bravo	O	Oscar
C	Charlie	P	Papa
D	Delta	Q	Quebec
E	Echo	R	Romeo
F	Foxtrot	S	Sierra
G	Golf	T	Tango
H	Hotel	U	Uniform
I	India	V	Victor
J	Juliett	W	Whiskey
K	Kilo	X	X-ray
L	Lima	Y	Yankee
M	Mike	Z	Zulu

Step 6: Write the word down in all caps (ALPHA)

Step 7: If there are no letters and the domain is made up of only numbers then: take the first 2 numbers and multiply it to the last 2 numbers and write that number down. If the domain has numbers in front and in the back then take the first 2 numbers and multiply it to the last 2 numbers and write that number down (ex. 123movies321.com would become 252)

Step 8: Based on the domain type of the domain, use a different symbol based on the key. If others, use = sign

.com	.org	.edu	.gov	.net	.io	.co	.au	.uk	.ie	.health
~	$	#	$	%	&	*	>	@	?	!

Annotated Example:

Line2.com

Step 1: Take the first 3 letters from the domain (URL), move one letter forward for each one. If the domain has numbers in it, subtract 1 from the number. Combine together if there are both numbers and letters and write them down.

Mjo1

Step 2: Only for alphabets or letters: capitalize the 2nd letter out of the first 3 letters you wrote down. If it is numbers: spell out the 3rd number in the sequence. If there is only 1 or 2 numbers spell it all out. Note: If the domain has letters and numbers use the corresponding rule and combine it.

mJoone

Step 3: Count the amount of characters total in the domain (don't count past the domain type), and write the number down.

5

Step 4: Put everything in order, write what you got for steps 1 and 2 first, then add step 3 to it

mJoone5

Step 5: Take the first vowel from the domain and associate it with the words from the Phonetic alphabet

I= India

Step 6: Write the word down in all caps

mJoone5INDIA

Step 7: If there are no letters and the domain is made up of only numbers then: take the first 2 numbers and multiply it to the last 2 numbers and write that number down. If the

domain has numbers in front and in the back then take the first 2 numbers and multiply it to the last 2 numbers and write that number down

The domain has letters and the domain only has a number in the back so we can skip this step.

Step 8: **Based on the domain type of the domain, use a different symbol based on the key. If others, use = sign**

.com	.org	.edu	.gov	.net	.io	.co	.au	.uk	.ie	.health
~	$	#	$	%	&	*	>	@	?	!

mJoone5INDIA~

	123movies.com	instagram.com	line2.com	harvard.edu	eHawaii.gov
Password	01twonPwjft9OSCAR~	jOt9INDIA~	mJoone5INDIA~	iBs7ALPHA#	flb7ECHO$

Rubric

Content Area	Performance Quality			
Readability	The algorithm is typed, organized, and nicely formatted for easy use.	The algorithm is organized and nicely formatted for easy use, but is not typed. —OR— The algorithm is typed, but the formatting and organization make it somewhat difficult to use.	The algorithm has formatting and organization that makes it somewhat difficult to use AND is not typed. —OR— The algorithm may be typed, but the formatting and organization make 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 make 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 make 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.