## Exercise on Security / Hashing:

## Question \#1:

Click on the locked Blue Lock \& use the SHA1 algorithm to encrypt this exact text: hello world. Then scroll down to the bottom of this PDF to check your answer.


## Question \#2:

Click on the unlocked Blue Lock \& decrypt this*: 2aae6c35c94fcfb415dbe95f408b9ce91ee846ed. Then scroll down to the bottom of this PDF to check your answer.


* If you want, you can highlight and copy text on this tab.


## Question \#3:

Click on the Locked Green Lock \& use the SHA1 algorithm to encrypt this exact text: password. Then scroll down to the bottom of this PDF to check your answer.


## Question \#4:

Click on the unlocked Green Lock \& decrypt this: 5baa61e4c9b93f3f0682250b6cf8331b7ee68fd8. Then scroll down to the bottom of this PDF to check your answer.


## Question \#5:

Click on the locked Pink Lock \& use the SHA1 algorithm to encrypt this exact text: password1234. Then scroll down to the bottom of this PDF to check your answer.


## Question \#6:

Click on the unlocked Pink Lock \& decrypt this: e6b6afbd6d76bb5d2041542d7d2e3fac5bb05593 Then scroll down to the bottom of this PDF to check your answer.


## Question \#7:

Click on the locked Orange Lock \& use the SHA 1 algorithm to encrypt this exact text: password.... and immediately after the word password, enter at least 4 nonsequential numbers (please make sure not to have a space between the word password and your numbers). Then scroll down to the bottom of this PDF to check your answer.


## Question \#8:

Click on the unlocked Orange Lock \& decrypt whatever your result was in Question 7. After you have done this, please read the answer at the bottom of this PDF.


## Question \#9:

Click on the locked Black Lock \& use SHA256 (SELECT SHA256 from the drop down box) Security to encrypt this exact text: password1234. Then scroll down to the bottom of this PDF to check your answer.


Click on the unlocked Black Lock \& decrypt this: b9c950640e1b3740e98acb93e669c65766f6670dd1609ba91ff41052ba48c6f3 (please note that this website might ask you to identify a few pictures to prove you are not a robot). Then scroll down to the bottom of this PDF to check your answer.


Answer to Question \#1 is: 2aae6c35c94fcfb415dbe95f408b9ce91ee846ed

## Answer to Question \#2 is: hello world

The conclusion is that SHA1 is not that secure using hello world as our password!
Answer to Question \#3 is: 5baa61e4c9b93f3f0682250b6cf8331b7ee68fd8

Answer to Question \#4 is: password
Answer to Question \#5 is: 6b6afbd6d76bb5d2041542d7d2e3fac5bb05593

Answer to Question \#6 is: password1234
The conclusion yet again is that SHA1 is not that secure!

Answer to Question \#7 is: Your answer will not be the same as mine...do the next question and you will see why.

The conclusion yet again is that SHA1 is not that secure!

Answer to Question \#8 is: You should have seen this message: Reverse decryption is failed. No match found. Try to search via "by all hash types" option. or try later. Sorry... :(
Why did we get that message? Because your encryption was stronger! Ok so we know that SHA1 is not that secure....but it can be secure if we enter more complex passwords (so please use more complex passwords from now on). Thanks!

Answer to Question \#9 is: b9c950640e1b3740e98acb93e669c65766f6670dd1609ba91ff41052ba48c6f3

## Answer to Question \#10 is: password1234

The conclusion is that although SHA256 is longer at 64 characters versus 40 characters for SHA1, your password that you want to encrypt MUST be better than a simple password : )

Next Step: If you are on the (B) track, please watch the lecture called (B Track) Wallets Intro. + Exercise on Creating a "Cold Storage Paper Wallet". If you are on the (A) track, please watch the lecture called $(A+B)$ [Optional] Side Note: Additional Cold Storage Idea.


> Optional Side Note Video: "Cybersecurity, Nuclear security, Alan Turing, and Illogical Logic" Click this button to learn more about Stanford and the evolution of public key cryptography as presented by David Hellman who created cryptography and he battled the NSA.

