DS-7349 – Data and Network Security

Homework - 3

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# Question 1:

* 1. – Below is the code for parsing the username and password. Once password is parsed, identify the salt value used for the password.

Using the salt value, encrypt the passwords mentioned in the dictionary.

Then compare the passwords from dictionary to that of the user’s mentioned in the file.

Victim’s password is a match from the file as “egg”.

Root password is not found.

Graphical user interface, text, application, email

Description automatically generated

1.2

First two letters in the hash value are the salt in standard DES based algorithm.

References:

<https://www.php.net/manual/en/function.crypt.php>

<https://en.wikipedia.org/wiki/Crypt_(C>)

# Question 2:

2.1 – Extracted the contents of the Zipped file by passing the password as “secret”.

Folder inside the document is displayed in the output.

Graphical user interface

Description automatically generated

2.2 Upon entering wrong password the file won’t open. See code and output below.

Graphical user interface

Description automatically generated with low confidence

2.3 Run a dictionary attack on the zip file. The password is identified as “secret”. The code and output is shown below.

# Graphical user interface, text, application, Word, email Description automatically generated

# Question 3:

Scanning the local IP address and all available ports.

List of open ports for the IP address provided are listed below. Code and output.

Graphical user interface, text, application, email

Description automatically generated

Downloaded nmap and ran a scan the results are displayed below.

All output from network scan are available in the nmap scanned results as well. However, the nmap gives more open network compared to that of the network scan from the code.

See results below:

Text

Description automatically generated