James Tourtellotte IT 223 - B01 6/22/2024 GMU

Password Checker Assignment

**Background Information and Directions** 

Users will often try to create passwords using something easy to remember, such as their last name, without understanding that large datasets of pre-computed password hashes ("rainbow tables") make it very easy for a hacker to find your password if using a weak password.

- 1. Most operating systems hash your password to obscure the plaintext. Open https://www.fileformat.info/tool/hash.htm up in your browser and type your last name in the String hash text field click on the Hash button to hash your last name.
- 2. Scroll down and copy the MD5 and SHA256 hashes of your last name into memory.
- 3. In a separate browser window, open https://crackstation.net/, paste the hashes of your last name into the text box, click on the CAPTCHA box to confirm you are not a robot, and click on the "Crack Hashes" box.
- 4. Note the color that appears. If it is green, that hash (your last name) is located in the rainbow table (see it displayed in the "Result" column).
- 5. Repeat steps 1 through 3, varying your last name, until you can find a variation of your last name that is not in the table.

Answer the following questions:

1. How many attempts did it take to find a variation of your last name that was not in Crack Station's rainbow table?

I tried this and it did not work. I am in there like swimwear

2. How would "salting" defeat a rainbow table?

It makes it non-feasible, too time consuming to crack something like this as it is impossible.