UNIVERSIDAD EL BOSQUE

PRACTICE No. 3

Using the command console, ensure that Python is installed correctly. Then, create a menu to handle the responses for the different tasks.

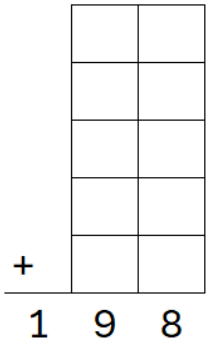
Option 1: Allows you to enter the name of a file and generate its SHA-256 hash value, saving it in a file with the same name but with a hs extension. Use the file *gato.png* as an example.

Option 2: Allows you to validate if the hash value of a file matches the file. The hash value is found in the hs file, and the file to be validated should be specified as input.

Option 3: A function that takes three parameters: the name of a text file in binary format, the hs file containing its hash value, and an integer indicating the byte in the text file that is corrupted. The function should correct the binary text file and then restore the original file.

Option 4: Given a text file with 1000 phone numbers, create a text file with the same phone numbers but with their check digit according to Algorithm 1 discussed in class.

Option 5: Provides a solution to the following problem. Using random number generation, determine which digits should be placed in the boxes of the image so that their sum equals 198.



Test your Python file from the command console.