Password Manager – ELI5 version

# Python

* Install Cryptography library to implement AES
* Follow the encryption and decryption algorithm
* Import necessary modules from the “cryptography” module
* Encryption:
  + Initialization Vector: used along with a secret key to encrypt the message
  + Creates an AES object with the provided key and IV
  + Pads the message to ensure its length is a multiple of the block size used in AES (here 128 bytes)
  + Encrypts the padded message using AES in cipher block chaining () mode
  + Returns the IV concatenated with the cipher text.

Decryption:

* + Takes iv\_concatenated message and the secret key
  + Separates the IV from the cipher text
  + Creates an AES cipher object with the provided key and the IV
  + Decrypts cipher text using AES CBC
  + Removes padding from the message
  + Return original
* Building a table in Python:
  + Use **tkinter**
  + For example, root = tkinter.Tk() means root is the name of the main window
  + Mainloop() – used when the application is ready to run – infinite loop used to run the application., wait for an event to occur and process the event as long as the window is not closed
* Tkinter()
  + Pack()
  + Toplevel()
  + Label()
  + Entry()
* Dictionary: where the keys are the index of the entry in the table
* When adding an entry, we store the encrypted password along with the index returned by tree.insert()

Other ideas:

* Make it a pixel artistic type aesthetic