∗ The recovered plaintext quote

Charles Marc Herve Perceval Leclerc born 16 October 1997 is a Monegasque racing driver, currently racing in Formula One for Scuderia Ferrari. He won the GP3 Series championship in 2016 and the FIA Formula 2 Championship in 2017. Leclerc made his Formula One debut in 2018 for Sauber, a team affiliated with Ferrari, for which he was part of the Ferrari Driver Academy.

∗ The recovered encryption key

1616

∗ A brief explanation of code

I first wrote the function cryptBreak followed by the provided input of ciphertextFile and key_bv, then open with the provided input file I cited some code from the lecture 2 which set up the passphrase, identify the blocksize to 16, and then reduce the passphrase to array size of blocksize. I stored the decrypted plaintext array and then do the differential XORing of bit blocks and decryption. The function at the end returns the plain text quote. I set up the main function if _name_ == "_main_" to call the cryptBreak function in order to get the output file with plaintext quote, and then through if condition I am able to find the encryption key.