

Part 2 - Ciphers

Open up a text editor and create your very own cipher. State all the logic behind your cipher. Then, using your cipher, encipher the phrase "I love cryptography!" Display the result. Using your cipher again, decipher the ciphered phrase. Do you get "I love cryptography!"?

TEXT: I AM A CAT LOVER

REFLECT METHOD V NZ N PNG YBIRE

TEXT: I love cryptography!

Reverse method : yhpargotpyrc evol I

Reflect method : v ybir pelcgbtencul

Decipher : I love cryptography!

Part 3 - Cybersecurity Research

1. Research major cybersecurity breaches over the past 20 years and pick one to write a short essay on.

Yahoo Breach

In August 2013, Yahoo stated that an unauthorised third party stole data from more than three billion user accounts. At that point, it was the largest data breach, it exposed the entirety of Yahoo's users.

2. Give an overview of what the breach was and the motivations behind it.
3. Explain where the "tech flaws" were, and how hackers were able to breach their system.

The hacker made off with users' name, birthday, phone number and password, which were encrypted with security that was easy to crack. Also, the hacker obtained the security question, back up the email to reset the lost password.

4. What has the company done to protect against that vulnerability since?

Yahoo sold itself to Verizon for \$4.48 billion in June, but the deal was nearly derailed by disclosure of the breaches and \$350 million was cut from Verizon's offer. Finally, Yahoo was combined with AOL which was a pioneer that Verizon bought in 2015 into a new company called Oath.