

Q1 Team name

0 Points

Stuxnet

Q2 Commands

10 Points

List the commands used in the game to reach the ciphertext.

go,back,read

Q3 Cryptosystem

10 Points

What cryptosystem was used in this level?

Playfair cipher

Q4 Analysis

20 Points

What tools and observations were used to figure out the cryptosystem? (Explain in less than 100 words)

When we typed go, the system showed us 2 paragraphs with a morse code written between the text. We decrypted the morse code using its international mappings and identified the security key "security". In the last paragraph, there was a hint regarding the ciphersystem used which is "PLAYFAIR". We then used the Playfair decryption algorithm along with key to decrypt the message and then removed the extra X's to get the original text.

Q5 Decryption algorithm

15 Points

Briefly describe the decryption algorithm used. Also, mention the plaintext you deciphered. (Use less than 250 words)

We used the playfair cipher decryption algorithm in which we first create a 5x5 table. The first alphabets in the table are the unique alphabets of the key followed by the remaining letters of the alphabet in order. We then selected pairs of letters of encrypted message and then used the rules of decryption algorithm to get the decrypted message.

Rules of decryption algorithm:

1. If both the letters are in the same column -> Take the letter above each one (if necessary do wrap around)
2. If both the letters are in the same row -> Take the letter to the left of each one (if necessary do wrap around)
3. If none of the above rules is true -> Form a rectangle with the pair of letters and take the letters on the horizontal opposite corner of the rectangle.

After passing through the message once, we removed the extra X's and got the final plain text which is given below. (We manually decrypted the message without coding the algorithm)

Plain text :

BE WARY OF THE NEXT CHAMBER, THERE IS VERY LITTLE JOY THERE. SPEAK OUT THE PASSWORD "OPEN_SESAME" TO GO THROUGH. MAY YOU HAVE THE STRENGTH FOR THE NEXT CHAMBER. TO FIND THE EXIT YOU FIRST WILL NEED TO UTTER MAGIC WORDS THERE.

Q6 Password

10 Points

What was the final command used to clear this level?

OPEN_SESAME

Q7 Code

0 Points

Upload any code that you have used to solve this level.

 No files uploaded

Assignment 2

● GRADED

GROUP

HIRAK MONDAL

MAYANK BANSAL

YASH SARASWAT

 [View or edit group](#)

TOTAL POINTS

65 / 65 pts

QUESTION 1

[Team name](#)

0 / 0 pts

QUESTION 2

[Commands](#)

10 / 10 pts

QUESTION 3

[Cryptosystem](#)

10 / 10 pts

QUESTION 4

[Analysis](#)

20 / 20 pts

QUESTION 5

[Decryption algorithm](#)

15 / 15 pts

QUESTION 6

[Password](#)

10 / 10 pts

QUESTION 7

[Code](#)

0 / 0 pts

