Q1 Team Name
0 Points

Goldfish

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 to encrypt the message and Morse code to encrypt the key used in message encryption.

Q4 Analysis
20 Points

What tools and observations were used to figure out the cryptosystem?
(Explain in less than 300 words)

After giving "go" command we moved closer to the boulder and after wiping the dust from the boulder we saw the pattern carved on it we suspected it to be morse code encrypted message after decrypting it using international morse code standard we got "CRYPTANALYSIS" as message and on the second paragraph there was a hint regarding "PLAYFAIR" . Hence to decrypt the final cipher text which we got after giving the "read" command we used the PLAYFAIR decryption algorithm with the key which we got after decrypting morse code to decrypt the cipher-text and then removed the extra X's to get the original message.

Q5 Decryption Algorithm
15 Points

Briefly describe the decryption algorithm used. Also mention the plaintext you deciphered. (Use less than 350 words)

Morse Code Decryption:
Morse Code decryption is used to decrypt the key for playfair cipher.First we separate each Letters in cipher and the separator is spaces then we simply replace the each letter encrypted symbol with

there corresponding English language letter interpretation according to International Morse code Standards which is given below:

A - .- , B - -... ,C - -.-. ,D - -.. ,E - . ,F - ..-. ,G - --. ,H - .... ,I - .. ,J - .--- ,K - -.- ,L - .-.. ,M - -- ,N - -. ,O - --- ,P - .--. ,Q - --.- ,R - .-. ,S - ... ,T - - ,U - ..- ,V - ...- ,W - .-- ,X - -..- ,Y - -.-- ,Z - --..

Playfair Decryption:

Playfair cipher decryption algorithm is used to decrypt the encrypted message. According to the algorithm , first we built a 5 by 5 matrix. The matrix is first filled by unique letters of the key in a row wise manner, The rest of letters are then filled sequentially. As we can see , there are total 26 letter in english alphabet but a 5 by 5 matrix can only contain 25 letters, so to solve that problem we ignore the letter j.

After filling the matrix , we divide the encrypted message in bigrams we follow three rules to decrypt the message.

1. If both letters of the digrams are in the same row of the matrix , then we replace them by the letters to their left. if one of letter is in the first column, then we substitute it with the last column letter of the same row

2. If both letters of the digram are in same column , then we replace them by the letters above them . If one of the letters happens to be at the 1st row of the matrix, it is replaced by the last row letter of the same column.

3. Otherwise each letter of the digram are replaced by letter from the same row but the column occupied by the other letter of the bigram

After manually replacing all the letters from the encrypted message by there appropriate substitutes and removing extra X's . we got the final decrypted message written below

BE WARY OF THE NEXT CHAMBER, THERE IS VERY LITTLE JOY THERE.
SPEAK OUT THE PASSWORD "ABRA_CA_DABRA" 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?

ABRA_CA_DABRA

Q7 Code
0 Points

Upload any code that you have used to solve this level

📄 No files uploaded