

### Q1 Team Name

0 Points

Turing

### Q2 Commands

10 Points

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

list  
go  
back  
read  
exit

### Q3 CryptoSystem

10 Points

What cryptosystem was used in this level?

Play Fair Cipher

### Q4 Analysis

20 Points

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

1. Using the 'go' command, we got some plain text which had morse code in it. As we have seen a lot of movies and series which use this code, we immediately identified it.
2. We decrypted the morse code using this site - "<https://morsedecoder.com/>".

3. Decrypted text gave us the key - "CRYPTANALYSIS".
4. The third paragraph had some text highlighted ("PLAY FAIR"). This gave us a hint that play fair cipher is used. We are familiar with this algo as we have studied this algorithm in our B.Tech course.
5. We used Playfair cipher algorithm to decrypt the whole text. Algo is explained in the next question.
6. The final decrypted text we got using this algo is:  
BE WARY OF THE NEXT CHAMBER, THERE IS VERY  
LITTLE IOY THERE.  
SPEAK OUTX THE PASSWORD "ABRA\_CA\_DABRA" TO  
GO THROUGH. MAY YOU  
HAVE THE STRENGTH FOR THE NEXT CHAMBER. TO  
FIND THE EXIT YOU  
FIRST WILXL NEXED TO UTTER MAGIC WORDS THERE.
7. The password we got is 'ABRA\_CA\_DABRA'.

## Q5 Decryption Algorithm

15 Points

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

The Playfair cipher algorithm consists of two steps:

- a. Generate the key square(5x5). The key square is a 5x5 grid of alphabets that acts as the key for encrypting the plaintext. The initial alphabets in the key square are the unique alphabets of the key in the order in which they appear followed by the remaining letters of the alphabet in order.  
Key square in this case is:

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

- b. Divide the whole ciphertext into pairs of two letters.
- c. Decrypt the plain text.  
-> If both the letters are in the same column, take the letter above each one.

Ex - Decrypted text of 'XO' is 'OF'

-> If both the letters are in the same row, take the letter to the left of each one.

Ex - Decrypted text of 'DF' is 'BE'

-> If neither of the above rules is true, form a rectangle with the two letters and take the letters on the horizontal opposite corner of the rectangle.

Ex - Decrypted text of 'UL' is 'WA'.

## 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

## Assignment 2


● GRADED

### GROUP

Rohit kushwah

Dinkar Tewari

Deepak Raj

 [View or edit group](#)

TOTAL POINTS

**60 / 65 pts**

QUESTION 1

Team Name

**0 / 0 pts**

QUESTION 2

Commands

**10 / 10 pts**

QUESTION 3

CryptoSystem

**10 / 10 pts** **+ 10 pts** Correct: Playfair Cipher**+ 0 pts** Incorrect

QUESTION 4

Analysis

**20 / 20 pts**

QUESTION 5

Decryption Algorithm

**10 / 15 pts**

QUESTION 6

Password

**10 / 10 pts**

QUESTION 7

Code

**0 / 0 pts**