Q2 Com	mands
10 Points List the comn	mands used in the game to reach the ciphertext.
	ands we entered were:
1. go 2. back	
3. read	
Q3 Crypt	toSystem
	system was used in this level?
Playfair cip	her was used in this level to decrypt the code and the key was ALYSIS". The key was decoded using morse code.
Q4 Analy 20 Points	/sis
What tools ar 300 words)	nd observations were used to figure out the cryptosystem? (Explain in less tha
observed a in the ciphe	at used the command read directly and got the cipher text. We analyzed the count of all letters in the cipher text. But, there was no such uneven distribution is in Substitution object for English. We also observed that there are no number text. So, the chances of 8 being a substitution or a caesar cipher were very started the game and entered the command go. We got a morse code and a
message fr cipher text	om spirit that mentioned "PLAY FAIR". So, we searched for it and found out the to be playfair cipher. All letters of cipher text were in upper case too. Playfair
lower case	s not supports numeric characters and contains code all in either upper cases s. We figured out that such properties are posessed by our cipher. So, most igraphs substitution must be there and it must be a playfair cipher.
So, we tried	d to figure out the key as "CRYPTANALYSIS". We found code written using "." a vas basically the word "CRYPTANALYSIS" written using morse code. We deco
After figurir	code with help from morse table and got the decrypted answer as our key, ng out the cryptosystem, we did the following steps:
 We built a following ke [[C,R,Y,P,T]. 	a 5°5 matrix and entered the key along with other alphabets. We got the ey matrix:
[[C,R,Y,P,T], [A,N,L,S,I/J [B,D,E,F,G]	
[H,K,M,O,G	9).
under score	- carried out our deciphering process. We removed all the commas, full stops, es, spaces etc. from cipher text as playfair cipher doesn't supports it.
took help o	ted the cipher text then pairwise forming digraphs. To decrypt each digraph w of the key table. The alphabets lied on same row of the key table, then we replace each letter of
digraph wit	the aphabets lied on same row on the key table. Eg. DF: > BE phabets lied on same column of the key table, then we replace each letter of
digraph wit	phabets lied on same column or the key table, then we replace each letter or th their immediately upper letter in the key table. Eg. XO: -> OF lphabets lied on different rows and different column, then we'll form a rectang
with the 2 I	teters as diagonally opposite elements. Then for each letter, replace it with the opposite element[the same row] in that rectangle of key table. Eg. UL: -> WA
We carried	out above process for all digraphs in the cipher text. The final decrypted text t contained only digraph words. We formed the correct words by using common
sense and	replaced characters X at certain places as it was jut acting as a filler element is to make them digraph.
	be the decryption algorithm used. Also mention the plaintext you deciphered. n 350 words)
1. We ask th	
1. We ask th "key". We e	he user to input the key for the playfair cipher and store it as a variable named entered the key as "CRYPTANALYSIS".
1. We ask th "key". We e 2. We remo user is a mi 3. We then	he user to input the key for the playfair cipher and store it as a variable name intered the key as "CRYPTANALYSIS". ve spaces(if any) from the key and convert it all to upper case(if key entered it to of capital and small letters). create a 5"5 matrix using a list data structure and name the list as "result". All
1. We ask the "key". We etc. We remouser is a minuser is	he user to input the key for the playfair cipher and store it as a variable name intered the key as "CRYPTANALYSIS", vee spacesiff any from the key and convert it all to upper casefif key entered it so of capital and small letters). creates a 5°5 matrix using a last stadus structure and name the list as "result". All initialized to 0. storing key in the result list. We iterate the key letter by letter using for loop, it
1. We ask the "key". We et 2. We remouser is a mi 3. We then values are 4. We start the letter is	ne user to input the key for the playfair cipher and store it as a variable named intered the key as "CRYPTARALD'SIS". We spacesiff any from the key and convert it all to upper caselif key entered to color of the color and small letters). Create a 5"5 matrix using a list data structure and name the list as "result". All initialized to 0.
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1. We ask the "key". We estable as minimum	he user to input the key for the playfair cipher and store it as a variable name metered the keys a "CEPT/TANALVISS". It was appeared any from the key and convent it all to upper case(if key entered it or clapital and mainle letters). creates a 5°5 matrix using a fist data structure and name the list as "result". All initialized to 0. storing key in the result list. We iterate the key letter by letter using for loop, it not in the list, we add if if the letter is 7° hen and 3° fro adorage with T. It's so ere are 25° cells and 26 sightabets. So, to fit all, I and J are written together by iding only unique letters of key, we add remaining left over letter in the matrix in loop only unique letters of key, we add remaining left over letter in the matrix.
1. We ask it "key". We e 2. We remouser is a mi 3. We then values are it 4. We start the letter is because th convention 5. After add We use a for the list only together. 6. We ask t 6. We ask t	we user to input the key for the playfair cipher and store it as a variable name interest the key as "CEPT/TANALYSIS", we spaces (if any) from the key and convent it all to upper case(if key entered it so of capital and small letters). create a 5°5 matrix using a list data structure and name the list as "result". All initialized to 0, so the structure is not a structure in the structure in the structure in the storing key in the result list. We iterate the key letter by letter using for loop. It not in the list, we add it. If the letter is T, then add 5°1 too along with T. It's so are are ZS cells and 56 playblacts. So, In 481, and J are written together by . Ing only unique letters of key, we add remaining left over letters in the matrix or loop and iterate between ASCI values SS(X) to 90(X). We'll add the letter! If it's not present entire. We'll handle the scene of UJ also and make them stor the user then to input the cipher text and we store it in a variable named "most
1. We ask th "key". We e 2. We remo user is a mi 3. We then values are 4. We start the letter is because th convention 5. After ado We use a fe the list only together. 6. We ask t We convert quotes and	he user to input the key for the playfar cipher and store it as a variable namer mented the keys. "EVPT/TANALYSIS". It was packed any from the key and convent it all to upper caselff key entered to or capital and small betters). create a 5°5 matrix using a list data structure and name the list as "result". All intollized to 0. storing key in the result list. We iterate the key letter by letter using for loop. It onto in the list, we add it. If the letter is 7 the mad 3° to osling with "It is so see are 25 cells and 26 siphabets. So, to fit all, and a law written traigenite for long only unique letters of key, we det creating left lover letters in the matrix for loop and transfer between ASCI values (SSQP) to 90/CJ, We'll add the letter of the packed of the story of
1. We ask th "key." We e 2. We remo 2. We remo 3. We then values are 4. We start the letter is because th convention 5. After add We use a fe the list only together. 6. We ask t We convert quotes and only works. Our key mix	he user to input the key for the playfair cipher and store it as a variable name metered the keys a "CEPYTANALVSIS". ver spaces[4] any) from the key and convent it all to upper case[if key extend I for clayfalt and mailled letters]. creates 5°5 matrix using a list data structure and name the list as "result". All initialized to 0. storing key in the result list. We iterate the key letter by letter using for loop, I cation in the list, we add if if the letter is 7° the nad 3° to aclayed with T. If so see are 25° cells and 26 ighthabets. So, to fit all, I and a se written together by it, injury only unique letters of key, we add remaining left over letters in the did the letter in if if is not present earlier. We'll handle the case of U1 also and make them ator the user then to input the cipher text and we store it in a variable named "mis- ting top upper case." We remove blank speeces, commas, full stops, double
1. We ask th "keys". We e 2. We remu user is a mi 3. We then values are 4. We start the letter is because th convention 5. After add We use a fe the list only together. 6. We ask t We convert quotes and only works Our key mi [ECR.Y.P.T.] [A.N.L.S.J.J.]	he user to input the key for the playfar cipher and store it as a variable namer mented the keys "CFYPTANALYSIS". It was packed any) from the key and convent it all to upper caself key entered to complain any and bettern). create a 5°5 matrix using a list data structure and name the list as "result". All initialized to 0. storing key in the result list. We iterate the key letter by letter using for loop. It storing key in the result list. We iterate the key letter by letter using for loop. It in one in the list. we add it. If the letter is 7'he mad 3" to a old one with 1" it is a letter as 2°C ecisis and 26 eighthests. So, to ft all, I and J are written together by ling only unique letters of key, we add remaining left over letters in the matrix to opp and letter between ASCI values GS(PI) to 90(2"). We'll add the letter in If 8's not present entire. We'll handle the case of I'J also and make them also I will be user the lost point the cipher tent and set of the I have valued he made "mag I mig to upper case. We remove blank spaces, commas, full stops, double under scores from the mag, All the given tasks are done because Playfair cip for finglish alphabets only.
1. We ask the "keys". We e 2. We remu user is a mi 3. We then values are i 4. We start the letter is because the convention 5. After add. We use a fethe list only together. 6. We ask the We convert quotes and only works. Our key mit [CR.Y.P.T.]. [A.N.L.S.M.] [B.D.E.F.G] H.K.M.O.G. [H.K.M.O.G.] 1. We ask the convertion of the conve	he user to input the key for the playfar colpher and store it as a variable names mented the keys a "CPYTPANALVSIS". It was passed farry from the key and convent it all to unpasse the vertical control of the control
1. We ask the "keys". We expend user is a min. 3. We then values are: 4. We start the letter is because the convention 5. After add We use a for the list only together. 6. We ask to We convert quotes and only works. Our key mm. [C.R.Y.P.T]. (R.N.L.S.W.] (B.D.E.F.G] (H.K.M.O.G. (UV.W.X.Z.) (UV.W.X.Z.)	we user to input the key for the playfair cipher and store it as a variable nameoral member the key as "CEPYTANALVISIS". voe spaces (if any) from the key and convent it all to upper case(if key entered it all contained in the letter is of the mad off to aclay with "It is so storing key in the result its." We leave the key letter by letter using for loop, it can be in the letter in the matrix of it in the letter is of it. If the letter is it, he mad off to aclay with "It it is so were are 25 cells and 26 siphabets. So, to fit all, I and I are written together by it ingo my unique letters of key, we add remaining left over letters in the matrix or loop and it enter between ASCII values (250) to 90/21, Well add the letter in if it is not present earlier. Well handle the case of I/J also and make them stor the user then to input the cipher text and we store it in a variable named "may the upper letter and the store it in a variable named "may the upper letter and the store it in a variable named "may the upper letter and the letter in the upper letter and the store it in a variable named "may the upper letter and the letter in the upper letter and upper letter and the letter in the upper let
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1. We ask it 'Neey'. We e 2. We remuser is a mi 3. We then values are identified the letter is because the convention of 5. After add We use a fe the list only together. 6. We ask t. We convert quotes and only works. Our key mm [IC.R.Y.P.I]. [AN.L.S.J.I] [B.D.E.F.G] [H.K.M.O.G [UV.W.X.Z] 7. Then we we can only 8. We creat matrix key number(look).	he user to input the key for the playfar cipher and store it as a variable name intered the keys a "CFPT/TANALYSIS", ove spaces[4] any) from the key and convent it all to upper case[8] key entered to contribute the contribute of
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1. We ask the "key" We end 2. We remuser is a min and we will be a second to the leaf of	he user to input the key for the playfar cipher and store it as a variable namer interested the keys. "EVET/TPIANALYSIS", ove spacesiff anyly from the key and convent it all to upper caselff key entered to over a convent of the convention of the
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1. We sait New Year N	he user to input the key for the playfar capher and store it as a variable names meeted the keys "CFPT/TANALYSIS", ove spaces(af any) from the key and convent it all to upper case)! key extend to convent the convention of the co
1. We ask If New Year Service of the	he user to input the key for the playfar colpher and store it as a variable names the termined the keys a "CFP/TPAIANLYSIS", ove spaces[4] anyl) from the key and convent it all to upper case[8] key extend to contain a simple of the contain and the contain and the contain and the contain and the contain a
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1. We skit "Ney". We re was the skit of th	he user to input the key for the playfar colpher and store it is a variable name intered the keys at "CPYTP/TANALYSIS", over spaces[4] any) from the key and convent it all to upper case[1] key entered to the convention of the co
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1. New askit "wey", We ever we was a constraint of the letter in a	the user to input the key for the playfar colpher and store it as a variable names the key as CYPYTANALYSIS. The spaces (34 may) from the key and convent it all to upper caself key entends of the control of the contr
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1. We sak! were were well as the same of t	the user to input the key for the playfar capher and store it as a variable names meeted the keys "CFYPT/PAIA/VISS". Invesposes[4] anyly from the key and convent it all to upper caself key entered to the control of
1. We said: "Ney". We examine the service of the s	he user to input the key for the playfar capher and store it as a variable name interested the keys. EVET/PTIANALYSIS." we spacesif anyly from the key and convent it all to upper caself key entered to the control of
1. New askit "New", "We be a valued in a series of the letter in a values are a values a values are a values	he user to input the key for the playfar colpher and store it as a variable name intered the keys at CPYPTANALYSIS. The spaces [4] and [5] from the key and convent it all to upper caself key extend to contain a contain the
1. We sake "Wey". We remain a war was was a war was	the user to input the key for the playfar colpher and store it as a variable name intered the keys at CPYPTANALYSIS. The spaces (FYPTANALYSIS) is very appaces (FYPTANALYSIS). The spaces (FYPTANALYSIS) is very appaces (FYPTANALYSIS) is very appaces (FYPTANALYSIS). The spaces (FYPTANALYSIS) is very appaces (FYPTANALYSIS). The spaces (FYPTANALYSIS) is very appaces (FYPTANALYSIS) is very appace (FYPTANALYSIS). The spaces (FYPTANALYSIS) is very appace (FYPTANALYSIS) in the spaces (FYPTANALYSIS) is very appace (FYPTANALYSIS). The spaces (FYPTANALYSIS) is very appace (FYPTANALYSIS) in the spaces (FYPTANALYSIS) is very appace (FYPTANALYSIS). The spaces (FYPTANALYSIS) is very appace (FYPTANALYSIS) in the spaces (FYPTANALYSI
1. We sak "wey". We can user is a manual of the letter is user in the letter is user is user in the letter in the letter in the letter in the letter is user in the letter in the lett	he user to input the key for the playfair cipher and store it as a variable name intered the keys a "CFYPT/PAIANISS". Invespaces[4] any) from the key and convent it all to upper case[8] key entered to obtain the control of the con



Assignment 2

GROUP

GROUP

Morus Shukla

Rishabit Lakhward

P View or est group

TOTAL PCINTS

65 / 65 pts

OUESTION 1

Team Name

OUESTION 2

Commands

OUESTION 4

Analysis

OUESTION 4

Analysis

OUESTION 5

OUESTION 5

0 / 0 pts 10 / 10 pts 10 / 10 pts 20 / 20 pts

15 / 15 pts 10 / 10 pts