PLAGIARISM COMPARISON SCAN REPORT

Content Type	TEXT	TEXT
Values	Text content used	Text content used

First Content **15%** matched	Second Content **16%** matched

Name- Aman Kumar RajRoll Id- 201951019includestdioincludestdlibincludestdbool----------PLAYFAIR code to encrypt using PLAYFAIRchar PlayFairEncrypt(char matrix[5][5],char text,int len) char ciphermalloc(sizeof(char)len) int i for(i0ilen ii2) x1-1,y1 x2-1,y2 atext[i] btext[i1] for(x0x for(y0y xssremoved x1xy1 xssremoved x2xy2 xssremoved cipher[i]matrix[x1][(y11)%5] cipher[i1]matrix[x2][(y21)%5] xssremoved cipher[i]matrix[(x11)%5][y1] cipher[i1]matrix[(x21)%5][y2] cipher[i]matrix[x1][y2] cipher[i1]matrix[x2][y1] textmalloc(sizeof(char)len)

for(i0i lenii2) x1-1,y1 x2-1,y2 acipher[i] bcipher[i1] for(x0x for(y0y xssremoved x1xy1 xssremoved x2xy2 xssremoved val1y1-1 val2y2-1 xssremoved val14 xssremoved val24$_1$

text[i]matrix[x1][val1] text[i1]matrix[x2][val2] xssremoved val1x1-1 val2x2-1 xssremoved val14 xssremoved val24 text[i]matrix[val1][y1] text[i1]matrix[val2][y2] text[i]matrix[x1][y2] text[i1]matrix[x2][y1] text malloc(sizeof(char)len) xssremoved xssremoved a7 b5 xssremoved xssremoved xssremoved xssremoved xssremoved text[i]

(char) a7 b5 cipher malloc(sizeof(char)(len)) xssremoved xssremoved$_5$

ciphermalloc(sizeof(char)len) k23 for(i0i cipher[i](char)((text[i]- textmalloc(sizeof(char)len) k23 for(i0i val(cipher[i]- val26 text[i](char)((val) for(i0i'a'str[i]lt'z') str[i]str[i]-('a'-'A') void ConvertToLower(char str,int len) int i for(i0ilen'A'str[i]lt'Z') str[i]str[i]('a'-'A') This will display stringvoid Display(char str,int len) int i for(i0ilen for(k0k lenplainkk1) xssremoved plain[k]'i'

x0 y0 for(i0i xssremoved matrix[x][y]key[i] xssremoved y0 for(i0i matrix[x][y](char)(i'j'visited[i]) matrix[x][y](char)(i'a') y if(y5) y0 x$_2$

void removeDuplicate(char str,int len,char text) int i int textlen0 for(i0iltlen-1i) if(str[i]str[i1]) text[textlen]str[i] text[textlen]'x' text[textlen]str[i1] text[textlen]'x' i else text[textlen]str[i] if(ilen-1) text[textlen]str[i] int

extraLen(char str,int len) int i int extralen0 for(i0iltlen-1i) if(str[i]str[i1]) extralen2 i return$_3$

extralenint main() int plaintextsize int keysize printf(Enter size of Key) scanf(%d,keysize) printf(Enter Key string) char keymalloc(sizeof(char)(keysize1)) scanf(%s,key) printf(Enter size of Plain Text) scanf(%d,plaintextsize) printf(Enter Plain Text string) char plaintextmalloc(sizeof(char)(plaintextsize2)) scanf(%s,plaintext) Upper to Lower ConvertToLower(plaintext,plaintextsize) ConvertToLower(key,keysize)

here we replace j to i$_6$

jtoi(plaintextsize,plaintext) jtoi(keysize,key) Make plain text of even length if(plaintextsize) plaintext[plaintextsize]'x' Replace all duplicate with x int extralenextraLen(plaintext,plaintextsize) char plainmalloc(sizeof(char)(plaintextsizeextralen1)) removeDuplicate(plaintext,plaintextsize,plain) plaintextsizeplaintextsizeextralen int i we will

make 55 matrix$_8$

to store the PLAYFAIR cypher table. char

matrix[5][5] bool visited[26] for(i0ilt5i) int j for(j0jlt5j) matrix[i][j]'' for(i0ilt26i) visited[i]false$_4$

matrixform(matrix,visited,key,keysize) We will now print Matrix created for Playfair cipher printf(n) printf(Our Generated matrix for Playfair cipher isn) for(i0ilt5i) int j for(j0jlt5j) if(jP) printf( ) printf(%c ,matrix[i][j]) printf(n) printf(n)

this is playfair cipher$_7$

printf(Cleaned plain text) Display(plain,plaintextsize) printf(ENCRYPTINGn) char e1PlayFairEncrypt(matrix,plain,plaintextsize) printf(Encrypted %s using PLAYFAIR Cipher ,plain) Display(e1,plaintextsize) char e2CaesarEncrypt(e1,plaintextsize) printf(Encrypted %s using CAESAR Cipher ,e1) Display(e2,plaintextsize) ConvertToUpper(e2,plaintextsize) char e3AffineEncrypt(e2,plaintextsize) printf(Encrypted %s using AFFINE Cipher ,e2) Display(e3,plaintextsize) printf(DECRYPTIONn) char d1AffineDecrypt(e3,plaintextsize) printf(Decrypted %s using AFFINE Cipher ,e3) Display(d1,plaintextsize) char d2CaesarDecrypt(d1,plaintextsize) printf(Decrypted %s using CAESAR Cipher ,d1) Display(d2,plaintextsize) char d3PLayFairDecrypt(matrix,d2,plaintextsize) printf(Decrypted %s using PLAYFAIR Cipher ,d2) Display(d3,plaintextsize) printf(n) printf(So finally we have %s which is same as our Cleaned text.nThus we have succesfully decrypted it.,d3)

name - balram choudharyID 201951039Section oneincludestdioincludestdlibincludestdbool for printing the datavoid uppercase(char str,int len) int i for(i0ilen'a'str[i]lt'z') str[i]str[i]-('a'-'A') void lowercase(char str,int len) int i for(i0ilen'A'str[i]lt'Z') str[i]str[i]('a'-'A') void printString(char str,int len) int i for(i0ilen for(i0i for(j0j msg malloc(sizeof(char)len) xssremoved xssremoved a7 b5 xssremoved xssremoved xssremoved xssremoved xssremoved msg[i]

(char) a7 b5 cipher malloc(sizeof(char)(len)) xssremoved xssremoved$_5$

msgmalloc(sizeof(char)len) k23 for(i0i val(cipher[i]- val26 msg[i](char)((val) ciphermalloc(sizeof(char)len) k23 for(i0i cipher[i](char)((msg[i]- ciphermalloc(sizeof(char)len) for(i0i lenii2) x1-1,y1 x2-1,y2 amsg[i] bmsg[i1] for(x0x for(y0y xssremoved x1xy1 xssremoved x2xy2 xssremoved cipher[i]matrix[x1][(y11)%5] cipher[i1]matrix[x2][(y21)%5] xssremoved cipher[i]matrix[(x11)%5][y1] cipher[i1]matrix[(x21)%5][y2] cipher[i]matrix[x1][y2] cipher[i1]matrix[x2][y1] msgmalloc(sizeof(char)len)

for(i0i lenii2) x1-1,y1 x2-1,y2 acipher[i] bcipher[i1] for(x0x for(y0y xssremoved x1xy1 xssremoved x2xy2 xssremoved val1y1-1 val2y2-1 xssremoved val14 xssremoved val24$_1$

msg[i]matrix[x1][val1] msg[i1]matrix[x2][val2] xssremoved val1x1-1 val2x2-1 xssremoved val14 xssremoved val24 msg[i]matrix[val1][y1] msg[i1]matrix[val2][y2] msg[i]matrix[x1][y2] msg[i1]matrix[x2][y1] for(i0i lenplainii1) xssremoved plain[i]'i'

x0 y0 for(i0i xssremoved matrix[x][y]key[i] xssremoved y0 for(i0i matrix[x][y](char)(i'j'visited[i]) matrix[x][y](char)(i'a') y if(y5) y0 x$_2$

int

extraLen(char str,int len) int i int extralen0 for(i0iltlen-1i) if(str[i]str[i1]) extralen2 i return$_3$

extralenvoid removeRep(char str,int len,char msg) int i int msglen0 for(i0iltlen-1i) if(str[i]str[i1]) msg[msglen]str[i] msg[msglen]'x' msg[msglen]str[i1] msg[msglen]'x' i else msg[msglen]str[i] if(ilen-1) msg[msglen]str[i] int main() int plainlen int keylen printf(Enter the size of plaintext key length) scanf(%d%d,plainlen,keylen) here we declare the size of the char array char plaintextmalloc(sizeof(char)(plainlen2)) char keymalloc(sizeof(char)(keylen1)) char temp[100] printf(Enter the Plaintext and secret key as a input) scanf(%s,plaintext) gets(temp) printf(enter the secret key n) gets(key) convert uppercase into lower case lowercase(plaintext,plainlen) lowercase(key,keylen)

here we replace j to i$_6$

replaceJtoI(plainlen,plaintext) replaceJtoI(keylen,key) here we make new plain text after inserting x into it if plaintext is length is odd then we add x on the last if(plainlen) plaintext[plainlen]'x' here we handle the repetition of the element int extralenextraLen(plaintext,plainlen) char plainmalloc(sizeof(char)(plainlenextralen1)) removeRep(plaintext,plainlen,plain) plainlenplainlenextralen then we will

make 55 matrix$_8$

here type is char int i char

matrix[5][5] bool visited[26] for(i0ilt5i) int j for(j0jlt5j) matrix[i][j]'' for(i0ilt26i) visited[i]false$_4$

buildMat(matrix,visited,key,keylen) now we print the matrix printMatrix(matrix)

this is playfair cipher$_7$

printf(n this is plaintext after removing repetition of character and make the plaintext even length n) printString(plain,plainlen) char enPlayencryptPlayFair(matrix,plain,plainlen) printf(n this is cipherText of playfairn) printString(enPlay,plainlen) char enCaesarencryCaesarCipher(enPlay,plainlen) printf(n this is cipherText of CaesarCipher n) printString(enCaesar,plainlen) uppercase(enCaesar,plainlen) char enAffineencryAffine(enCaesar,plainlen) lowercase(enAffine,plainlen) printf(n this is cipherText of Affine cipher n) printString(enAffine,plainlen) uppercase(enAffine,plainlen) char deAffinedecryAffine(enAffine,plainlen) printf(n this is PlainText of Affine cipher n) printString(deAffine,plainlen) char deCaeserdecryCaeserCipher(deAffine,plainlen) printf(n this is PlainText of Caesar cipher n) printString(deCaeser,plainlen) char dePlaydecryptPlayFair(matrix,deCaeser,plainlen) printf(n this is PlainText of PlayFair cipher n) printString(dePlay,plainlen)